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THE GRADUATE SCHOOL AND THE DECLINE OF LIBERAL EDUCATION

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DECLINE OF LIBERAL EDUCATION

BY

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Teachers College, Columbia University

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FOREWORD

IN THE UNITED STATES LIBERAL EDUCATION ONCE OCCUPIED THE center of the academic stage. Indeed, for a long period it was the only type of higher education available to American youth. In those days to hold the degree of Bachelor of Arts marked a man at once as a person of high endowment and achievement. Happily, to some extent the liberal arts degree still continues to be a hallmark of intellectual standing.

But generally the institutions established to provide liberal education now languish. They have lost their hold upon Americans. Less than half the first degrees awarded by institutions of higher education are now granted by liberal arts colleges, and the percentage steadily falls. Moreover, many of these degrees are granted to students whose general education has been all but smothered by the highly specialized academic and vocational courses added during recent decades with the purpose of helping the liberal arts colleges keep their financial heads above water.

Why have these dramatic changes occurred in the status of liberal education? What are the root causes of the present weakened condition of the liberal arts institutions? The causes of their decline are varied and complex. But perhaps the situation can best be summed up in the simple idea that they have lost their sense of special purpose. The cause

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is not that they have assumed a larger responsibility for vocational education, although most of them have! It is not that they have admitted hosts of new academic subjects as the world of learning has expanded, although they all have! It is not that their social life has grown enormously heavy and preoccupying, although it has!

It is that the liberal arts institutions have attempted to become what they should not really be. They have attempted to change themselves into another type of institution while also trying to remain an ideal self of years long past. Instead of remaining the makers of men, they have become the makers of workers and of knowledge. They have to a large extent abandoned their ancient and honorable task of training young people to live informed, intelligent, and integrated lives. They seem to have forgotten the admonition of Montaigne that "the object of education is to make, not a scholar, but a man."

Trying to live in conformity with an image while changing in reality eventually leads to disintegration of personality and a loss of the capacity for sustained self-direction. The liberal arts colleges have been attempting to live according to a conception which prevailed decades ago and at the same time they have perhaps unconsciously adopted the policies and practices of another institution—the graduate school. This is an institution whose ends are in large measure at cross purposes with those of the liberal arts college. It is not surprising, therefore, that life within the liberal arts colleges has become confused and often aimless, and that it lacks the vitality which it once so abundantly had.

If the liberal arts colleges are to regain their proper functions they must free themselves from the dominance of the graduate school. They must again affirm, and begin to live by, a set of genuine purposes expressed in unmistakably clear language. Unless they do this they will undergo complete disintegration, as many have already begun to do.

In another volume in this series the author has suggested appropriate purposes for liberal education in the United States. In this volume he attempts to show that the liberal arts colleges cannot achieve these purposes until they regrasp their own destiny. Neither can the undergraduate professional schools included in the studies of the Institute offer their students the broad general education they need unless the liberal arts colleges which supply this instruction basically alter their programs. The argument here set forth, which rests on historical and critical analysis, must speak for itself. The author feels firmly that in the absence of the basic changes here suggested liberal education as an educational entity and as an approach to a way of life will be irretrievably lost.

While preparing this treatise the author has recognized that he owes much to many. He could not hope to recall all their names. But to several he owes specific debts which he gratefully acknowledges. The late Samuel Paul Capen, the distinguished Chancellor of the University of Buffalo, with whom the author worked for nearly a score of years, inspired his first thoughts on this subject; the erudite W. H. Cowley, David Jacks Professor of Higher Education at Stanford University, read the entire manuscript critically and deserves the fullest gratitude for many improvements in the text; Harry J. Carman, dean of American college deans, and wise man, suggested valuable changes in language and interpretation; and lastly, the officers of the Carnegie Corporation of New York, of which John W. Gardner is the president, made possible the entire study of which this work forms a part. Naturally, none of the persons mentioned has any responsibility for the ideas expressed or the proposals suggested.

EARL J. MCGRATH
Executive Officer

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THE GRADUATE SCHOOL AND

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Part I: LIBERAL EDUCATION

FORSAKES ITS MISSION

THE INSTITUTIONS RESPONSIBLE FOR PROVIDING LIBERAL EDUCATION do not now adequately perform their function, a function vitally related to the destiny of the nation. Indeed, a critical review of the history of American higher education, and of its present purposes and programs, raises the question whether without drastic reversals of policy liberal education can be generally re-established in the colleges and universities of the United States. Progress toward this desirable goal is highly improbable unless the character of contemporary liberal education is objectively examined in terms of the historical influences which, often unobserved, have made it what it is today. Without such a systematic examination of antecedents and an analysis of the current influences of extramural policy-making bodies, proposals to redirect liberal education toward its socially crucial objectives can only be, as until now they have largely been, unrealistic and abortive.

PRIME PURPOSES OF LIBERAL EDUCATION

To ascertain the extent to which liberal arts colleges fail to perform their mission, their proper purposes must be identified. Although a considerable variety of objectives for liberal education exist, they can be grouped under three inclusive purposes: (1) to provide that comprehensive body

of knowledge in the major branches of learning—the physical sciences, the social sciences, and the humanities, including the fine arts—without which the individual may be victimized by his own ignorance or by those who seek to bend his actions to their own purposes, (2) to cultivate the skills of reasoning and communication required to attack a new problem effectively, to order the relevant data, and to express by voice and hand the results of these intellectual activities, and (3) to nurture the traits of mind and spirit characteristic of those who have achieved a consistent view of themselves and the complex physical and social world in which they live.[1]

Most persons would agree that those who have had a liberal education should possess a broad knowledge of the various major branches of learning. Although it may be true, as Whitehead observed, that "a merely well-informed man is the most useless bore on God's earth,"[2] it is no less certain today that the ignorant man is a menace to himself and to his fellow citizens. No one can live fully and effectively without the basic knowledge which Ortega y Gasset described as "the system of ideas *by* which the age lives." [3]

In discussing the training of the members of the professions, Ortega y Gasset affirms the need for an underlying education in the ideas by which an age conducts its life. He holds the firm conviction that:

> Society needs good professional men—judges, doctors, engineers—and therefore the university is prepared to furnish professional training. But society needs before this, and more than this, to be assured that the capacity is developed for another kind of profession, the profession of governing. In every society someone governs, whether a group or a class, few people or many. By "governing" I mean not so much the legal exercise of authority as a diffuse pressure, or influence, exerted upon the body politic. Today, the societies in Europe are governed by the bourgeois classes, whose majority is composed of professional men. It is of the first importance to these societies, therefore, that these professional people, aside from their several professions, possess the power to make their lives a vital influence, in harmony with the height of their times. Hence it is imperative to set up once more, in the university, the teaching of the culture, the system of vital ideas, which the age has attained. This is the basic function of the university. This is what the university must be, above all else.[4]

[1] These purposes of liberal education are treated more fully in another publication by the author, *Liberal Education in the Professions* (New York: Bureau of Publications, Teachers College, Columbia University, 1959).

[2] Alfred North Whitehead, *The Aims of Education* (New York: The Macmillan Company, 1929), p. 1.

[3] José Ortega y Gasset, *Mission of the University*, trans. H. L. Nostrand (Princeton, N.J.: Princeton University Press, 1944), p. 81.

[4] *Ibid.*, pp. 58–59.

Thoughtful persons who move among the "educated" recognize that some who now leave our institutions of higher education are unacquainted with the living ideas of our time. Haltingly they feel their way in darkness through many of the common avenues of life because their path is unilluminated by even the most elementary knowledge of themselves or of our world. That many who have devoted four years to higher education are innocent of much of the reliable knowledge of our day is attested by the experience of the author of a best seller on the social implications of atomic energy. In a personal letter to the author he remarked that discussions with college audiences reveal that on many matters of fundamental significance they are no better informed and hardly more curious than the man in the street.

In view of the enormous mass and swift growth of modern knowledge, no fair-minded person would expect students to encompass any large portion of it in four, or even in forty, years. Within the time available, however, they can properly be expected to gain an acquaintance with the basic facts and principles of the major divisions of man's intellectual and spiritual resources. A student who completes an undergraduate education of four or more years in science and acquires little or no knowledge of English literature, history, philosophy, or economics lacks some of the essentials of a liberal education. Likewise, students with a major interest in the humanities and the social sciences cannot be considered liberally educated unless they comprehend in the broad the sciences of man and the physical world. Without such understanding they will be prepared neither to think nor to act effectively in situations common to all men.

Second, liberal education ought to cultivate those skills and habits of reasoning which constitute intellectual competence, the capacity to think logically and clearly, the ability to assemble relevant facts and to organize one's thoughts on any subject. In a sentence, these faculties might collectively be described as the capacity to use one's full intellectual resources skillfully in the solution of a problem or to order and interpret a complex set of data in the physical, social, or artistic world.

To gain competence in using the diverse forms of reasoning, the student must have experience with intellectual processes in addition to those employed in his major field of interest. The various disciplines employ some intellectual processes in common—for example, logical deduction from valid premises—whether the matter under consideration involves the facts of science, history, or art. Yet they also use peculiar intellectual methodologies. The chemist will only be satisfied with knowledge in which the probability of error is reduced to negligible propor-

tions, while the historian or the sociologist, dealing as he does with human acts and events, must be satisfied with a much greater range of error of both fact and judgment. The student of art enjoys even greater freedom of subjective evaluation and interpretation than either the physical or the social scientist.

The most distinctive and yet the most widely used processes of reasoning are doubtless the deductive method of formal logic and the inductive method of science. Those who are to be liberally educated can most readily gain familiarity with these mental processes, and skill in their use, by the study of mathematics and science. No one can live intelligently today unless he understands the methods of reasoning with which scientists have so dramatically explored the unknown void of the universe from the boundless oceans of cosmic space to the infinitesimal sphere of the atom's nucleus. The intellectual procedures used in the conception of a hypothesis, the arrangement of an experiment to test it, the drawing of conclusions from the established facts—all these skills every individual needs if he is to reason validly and objectively about physical phenomena and understand the scientist's work. Moreover, properly taught, these habits of thought can be used in analyzing the complex social phenomena of modern life.

In their interpretation of the world and the activities of men other branches of learning—for example, the humanistic disciplines—use somewhat different intellectual operations. Although they employ the laws of logic in constructing a reasoned view of reality, they concern themselves particularly with values, with the ends of life, with the destiny of man. Teachers of history, literature, philosophy, and the arts cannot confine themselves to a consideration of the characteristics and behavior of exactly measurable phenomena. It is their peculiar responsibility to introduce the student to the reflections of perceptive minds on the nature of man and his world, ideas characteristically couched in much less precise terms than those of the scientist. The teacher of the humanities deals with man, not as a physico-chemical complex operating within a mechanistically determined system, but rather with man as a being of purposes, values, loves, hates, ideals, and sometimes as a prophet with divine inspiration. In literature the student can vicariously enjoy many of the richest experiences of life, obtaining insight into human motivation and behavior attainable in no other way except through personal experience. When the humanities are properly taught, the student acquires at least an elementary understanding of the distinctive habits of thought which philosophers, dramatists, artists, and the seers of the ages have used in explaining man and the purposes of his being.

Still another area of intellectual endeavor uses somewhat different approaches in its interpretation of reality. The social sciences—for example, economics, sociology, and political science—in so far as possible follow scientific methods by constructing hypotheses, setting up controlled experiments, and making objective observations. But these disciplines also use other investigative procedures including statistical method, historical analysis, and case studies. Often, however, the scholar concerned with social phenomena, unlike the natural scientist, cannot arrange experiments which others can repeat. He must sometimes accept data of unprovable authenticity or of incomplete representativeness and, reasoning cautiously, arrive at tentative conclusions. Most of his material does not lend itself to the exact measurement of the physical scientist.

In the words of the celebrated economist, Frank W. Taussig, the social scientist deals with the "wavering and incalculable behavior" of man. Thus the educated person must be skilled in tentative and yet precise reasoning about phenomena difficult to measure exactly. Most human actions are necessarily based on evidence which, though not fully conclusive, is the best available at the time. Liberal education should have as one of its chief purposes the cultivation of habits which will prevent human beings from acting blindly on few facts, or procrastinating indefinitely because the last shred of evidence is not in.

The liberally educated mind possesses another set of intellectual skills, those of expression—the abilities involved in the effective use of the various symbols of communication—words, numbers, and artistic media. In the formulation of concepts and in the orderly development of a reasoned view of life, the meanings of words are the building blocks; the logical relationships among these verbal expressions serve as the cement which holds them together.

No subject has been more severely criticized than the teaching of communication skills. Yet none is more highly valued by those who recognize its unique usefulness in all phases of adult life. A study of over thirteen thousand degree-holding employees of the General Electric Company documents this statement. These individuals were divided into graduates of engineering schools and graduates of liberal arts colleges. When asked to appraise the various subjects they had pursued as undergraduates in terms of their career value, the nonengineers placed oral and written English at the top of the list. Engineering students valued English second only to mathematics.[5] In turn, thirty-four hundred fac-

[5] *What They Think of Their Higher Education*: A Report of a Survey of the Opinions of 13,586 College Graduates, Employees of the General Electric Company (Schenectady, N.Y.: General Electric Company, 1957).

ulty members in eight types of professional schools, replying to a recent questionnaire from the Institute of Higher Education, stated that they would require instruction in English more than any other subject offered in the liberal arts colleges curriculum. In fact, it was the only subject which almost all the respondents considered essential in any liberal arts curriculum.[6]

A grasp of another means of communication—the basic concepts of number and quantitative relationships, and skill in their use—is indispensable in understanding the varied phenomena of size, space, shape, and speed with which all human beings are daily concerned. All liberally educated persons ought, therefore, to possess some skill in this form of communication.

Institutions of higher education as a whole have, unhappily, neglected the means of communication used by the painter, the sculptor, the musician. Yet many of mankind's most intensely expressive, richest emotional experiences have been communicated by the painted canvas, the chiseled stone, the orchestrated theme. Liberally educated men and women should comprehend and appreciate meaning communicated through these artistic media, and if possible should also experience the unique satisfaction gained by personal expression in one or more of them.

The third major objective of liberal education embraces attitudes, ideals, and traits of personality and character. These qualities, harder to describe and more difficult to measure than the other outcomes of liberal education, are nevertheless the hallmark of the cultured man and woman. As has been said, they are the qualities that remain after all the learned facts have been forgotten. John W. Gardner has perceptively described some of these traits in a report issued by the Carnegie Corporation:

> Most of us agree that we would wish the educated man to be marked by intellectual curiosity, the capacity to think critically, and the capacity to weigh evidence dispassionately. We would wish him to be tolerant, temperate, balanced in judgment, . . . and we would not wish his rational processes to be at the mercy of his fears and prejudices.[7]

The liberally educated person embraces certain values. He has at least a provisionally firm set of convictions, an examined philosophy of life, a *Weltanschauung*, on the basis of which he structures the purposes

[6] Paul L. Dressel, Lewis B. Mayhew, and Earl J. McGrath, *The Liberal Arts as Viewed by Faculty Members in Professional Schools* (New York: Bureau of Publications, Teachers College, Columbia University, 1959).

[7] Carnegie Corporation of New York, *Fifty-first Annual Report, 1955–56* (New York: The Corporation, 1956), p. 6.

and directs the activities of his existence. These values of the liberally educated man represent not only the ideas and causes for which he lives, but, more importantly, those for which, if necessary, he would die. They give stability to his being. They serve to keep the ship of life steady on course as it is buffeted by the unpredictable forces of man and of nature. Without them the lives of men have no direction for, as Socrates said, "If a man does not know to what port he is sailing, no wind is favorable."

Knowing his own limitations, the liberally educated man has respect for the rights and views of others. He is humble not only before the capricious and uncontrollable forces of nature but also in the presence of his own ignorance. He continually seeks wisdom through the extension of his knowledge and reflection on its meanings. Realizing how much he does not know, he is driven by an unrelenting curiosity, an unquenchable thirst for deeper knowledge and fuller understanding.

These, then, are the three major goals of liberal education. Although not unlike some of the traditional ends of liberal education, they nevertheless deserve reaffirmation because they do not today animate higher education as they must if the ideal of the intelligent, self-directing, morally responsible, free citizen is to be realized in this land.

Eclipse of Liberal Education

Liberal arts colleges have with notable exceptions become increasingly remiss in providing the broad general education just summarized. Until the late nineteenth century the liberal arts curriculum was designed to acquaint the student with the classical literature of the Western world, to cultivate the skills of effective reasoning, writing, and speaking, and to excite interest in and nurture the habit of reflection on the great philosophical problems of life and death. Even as late as the first decade of this century many liberal arts colleges aimed to educate the whole man. In 1905 one such institution, less influenced than its sister colleges by developments in the larger universities, could still point with pride to the statement of its founders that "in the best education the matter of first importance is character; second, culture; third, knowledge."[8]

After the turn of the century, however, a basic transformation began in most liberal arts colleges. Increasingly, they became preoccupied with the creation and the transmission of specialized knowledge. They gave less and less attention to the expansive purposes of imparting comprehensive knowledge, cultivating the skills of reasoning, and nur-

[8] Macalester College, *Catalogue, 1905–1906,* p. 5.

turing a reasoned philosophy of life essential to effective living. These changes in the theory and practice of higher education, though in some respects not without merit, have undermined the liberal education of American youth. The disintegration of the standard college curriculum which was formed in the matrix of the ancient purposes of liberal education, accompanied by the ascendancy of the elective system, soon made it possible for graduates to leave most colleges with little more than a portion of specialized knowledge in a single academic discipline.

With the exception of a few institutions—such as the colleges at the Universities of Chicago and Columbia, Colgate University, Michigan State University, and the University of Florida—where requirements in general education provide breadth of learning for all students, the universal specialization in a single field is complemented only by a congeries of unrelated courses. Except through accident or personal recalcitrance, the programs of studies pursued by the majority of college students exhibit no common body of knowledge, intellectual procedures, or philosophical wholeness. Yet many of these students whose education is composed of infinite permutations of elements united by no transcending purpose other than a vocational goal receive the ancient Bachelor of Arts degree signifying to the world that they possess the qualities of mind and character associated with a liberal education.

Most college catalogues do, to be sure, contain comprehensive lists of aims concerned with aspects of education other than the acquisition of knowledge in a major field. With the exception of church-affiliated institutions, however, the relationship between these idealistic statements and the daily teaching activities in the numerous departments which make up our conglomerate academic communities is obscure. Whatever shortcomings of narrowness and excessive emphasis on technical subject matter may exist in professional schools they do have rather clearly defined objectives which set the content of the curriculum, the teaching procedures, and the institutional atmosphere. Indeed, administrative officers and teachers in professional schools studied by the Institute of Higher Education frequently mentioned how difficult it is for students to obtain in the liberal arts colleges the broad and yet precisely described general instruction needed to round out their necessarily specialized professional education.

To suggest that the universal, compact, and clearly defined liberal arts curriculum of the mid-nineteenth century should now be restored would be unrealistic and unsound. Such an effort would be swimming against the stream of developments in the worlds of learning and living. *The liberal arts college must, however, regain and affirm a clear, feas-*

ible, and independent mission. To do this it must revise its present policies and practices. This it cannot do until it is freed from influences extraneous to its own purposes and character and is unhampered in the determination of its own destiny.

Transitions in the Liberal Arts College

The necessary reconstruction of the college curriculum can proceed more effectively if it is based upon an understanding of the historic and current forces responsible for its present plight. This process ought properly to begin with a brief review of the radical changes that have occurred in the liberal arts curriculum since the Civil War. A historical study by Willis Rudy, *Liberal and Professional Influences in the American Liberal Arts College Curriculum,*[9] sheds much light on the steps by which the curriculum of the liberal arts college became what it is today. Dr. Rudy's study reveals that until the Civil War the curriculum in these institutions was essentially humanistic and uniform. College youth of the early nineteenth century studied almost exclusively the ancient languages and literatures, philosophy, religion, and elementary mathematics. The sciences—physics, chemistry, and biology—were only meagerly included and usually received descriptive rather than experimental treatment. The social sciences—sociology, psychology, economics, political science and the others—received virtually no treatment. Modern languages, rarely taught, usually received no academic credit and involved an additional personal expense to the student. Study of the English language and its literature was inconspicuous. The little vocationally oriented instruction in surveying, navigation, and mensuration offered here and there was usually considered outside the accepted curriculum and carried no credit for the B.A. degree.

In the early decades of the nineteenth century some of the young nation's most intelligent and informed minds—Thomas Jefferson, Eliphalet Nott, Francis Wayland, George Tichnor, to mention only a few—vigorously advocated instruction in the sciences, modern languages, modern history, and in technical subjects such as engineering. Their exhortations fell on deaf ears. The time was not ripe for innovation. For nearly a half century longer the classicists constituted an impregnable guard at the entrance to the college curriculum. Their partisan spokesmen in high places eloquently depreciated the new learning and extolled the virtues of the old. The statement of their views most influential in preserving the status quo by retarding the introduction into the college

[9] This study will be published by the Institute of Higher Education in 1960.

curriculum of the rapidly growing corpus of new knowledge was the Yale Report of 1828.[10]

In that year the president and faculty of Yale University vigorously expressed the opinion that, "The two great points to be gained in intellectual culture, are the *discipline* and the *furniture* of the mind; expanding its powers, and storing it with knowledge." To this end each student was required to pursue a common curriculum consisting of the ancient languages, mathematics, philosophy, a bit of science, and English. The faculty flatly rejected the elective principle then being vigorously promoted at Virginia, Union College, and Harvard. Since for decades Yale was the fecund "mother of colleges," sending her sons forth to establish liberal arts institutions on the ever-expanding frontier, the influence of the educational philosophy stated so forcefully in the report of its faculty was profound. Although this monument to the classical purposes of liberal education was later washed away by the rising tide of new knowledge and an irresistible public demand for educational change consistent with the advances of learning and of life, it deserves the study of all concerned with curriculum making as an example of the restraining influence of tradition on educational innovation.

But the new educational and social forces unleashed by the Civil War effectuated radical and enduring modifications of the common liberal arts curriculum. The mere multiplication of academic departments provides a crude index of the extent to which traditional liberal education disintegrated in the second half of the nineteenth century. Yale College, in a private eastern university, the liberal arts college at the University of Michigan, a state university, and Illinois College, a midwestern independent liberal arts college, represent the general developments from 1840 to 1905.

In 1840 Yale College had eight departments, the college at Michigan five, and Illinois College five. By 1905, the comparable figures were 22, 32, and 12 departments, respectively. Significantly, Yale College, for nearly a half century the chief stronghold of the prescribed classical course of study, had by this time become a leader in the movement which eventually abolished the venerable liberal arts curriculum. The number of departments and the varieties of instruction offered in Yale College were exceeded in 1905 by only one other institution in the entire group studied by Rudy. This expansion resulting from the differentiation of subject matter before 1905 was only the modest harbinger of more arresting changes yet to come.

[10] Yale Faculty, "Original Papers in Relation to a Course of Liberal Education," *American Journal of Science and Arts.* 15:297–351 (January, 1829).

By mid-twentieth century college offerings, especially those in large universities, became nearly as numerous and as varied as the students who took them. One historian of the liberal arts college, observing this fission of subject matter, picturesquely comments that "the Yale catalogue for 1829 managed to include the entire four-year course of study in one page; in 1955 it took two hundred pages to list the undergraduate courses of study."[11]

Although the system of majors and minors was later to mitigate the ravishing effect of the unbridled elective system, the content, method, and spirit of liberal education were by the turn of the century irrevocably changed. Liberal education as a universal body of learning, a common set of intellectual skills, a uniform concern with the persistent philosophic problems which had engaged the minds of university teachers for a thousand years, was no more. For the enlightenment of those who contend that the "good old liberal education" was dethroned by the usurpations of professionally and vocationally oriented subjects, it should be pointed out that during the period when the curriculum in the liberal arts colleges was being shattered beyond recognition, vocational subjects were nearly nonexistent. Indeed, they were generally frowned upon and shunned. The claim that vocationalism undermined traditional liberal education is valid *only* if the majors established in the various disciplines are considered the beginning of occupational training. Much can be said in favor of this view. It is not, however, a notion widely held among those who lament the vocationalization of the liberal arts college.

In this period of rapid differentiation of subject matter, colleges with a religious affiliation preserved some semblance of a unifying principle. Students continued to be instructed in philosophy and religion to nurture habits of reflective analysis of the world in which they lived and to develop a reasoned philosophy of life. But even in these institutions emphasis is now largely on the manifold specialized courses produced by rampant cell division in the various disciplines.

What forces caused this metamorphosis in liberal education? The varied needs of a rapidly developing frontier society produced a growing demand for new types of instruction. Moreover, Jacksonian social philosophy with its principle of educational opportunity for all, regardless of social status or vocational destiny, supported rapid differentiation in the substance of learning.

However, these changes in the aims and content of liberal education resulted primarily from the importation of the philosophy and practices

[11] George P. Schmidt, *The Liberal Arts College* (New Brunswick, N.J.: The Rutgers University Press, 1957), p. 186.

of German higher education. Any examination of the evolution of liberal education in the United States would be deficient without careful scrutiny of the German university, the influence of which lies at the root of most of our problems in higher education today. This transplanted institution did not adapt well to the established system of American higher education, based on the British tradition in which the college was central.

The influence of the German university ideal on undergraduate instruction has been especially unfortunate. Through its emphasis on the creation of new knowledge and the attendant specialization of academic labor it initiated the fragmentation of the college curriculum previously described. It also activated the first serious conflict of purposes in liberal education in this country. The growth of new knowledge, first in the natural sciences and later in the social sciences, supplied the force needed to break up the traditional curriculum. The various uses of the elective principle after Charles W. Eliot, the young president of Harvard, in 1869 became its forceful and eloquent protagonist, provided the mechanism by which the disintegration of the liberal arts curriculum could be accomplished within the limits of respectability. After careful thought some educators deliberately abandoned the theory of higher education that had been accepted in Western culture since the Renaissance. The majority simply pushed it aside in their eagerness to establish their own subjects in the exclusive family of liberal arts disciplines.

Specialization in the Ascendant

The ensuing fragmentation of knowledge and the consequent differentiation of the components of liberal education established the virtual parity of subject matter. Specialized and professionally slanted instruction in the academic departments disestablished the conception of a liberal education as a definite body of knowledge. After specialized instruction in the academic subjects became the salient characteristic of college education the introduction of new courses related to the professions and other vocations was an easy and natural step. Instruction in accounting, journalism, and other types of professional education steadily gained admission to the college curriculum. After 1900 many types of professional, semiprofessional, and vocational education were inaugurated with the result that degrees from liberal arts colleges have become even more meaningless in terms of common intellectual achievements than the earlier differentiation of academic disciplines had already made them.

The extent to which the purposes of professional and vocational education have now sunk their roots into the undergraduate college,

allegedly equipped to provide a liberal education, is apparent in the catalogue statements of departments in Yale College. The institution which once defended the inviolability of the liberal arts curriculum now permits, indeed encourages, students in many departments to design their undergraduate programs on the basis of occupational objectives. A few statements from the Yale College catalogue for the academic year 1959–1960 convincingly illustrate the point:

> The department of Art offers the art major to undergraduates in Yale College who propose *to follow a career* in the visual arts. . . .
>
> Students in Yale College may enter the first year of the M.F.A. program upon satisfactory completion of their art major.[12] [*Italics added.*]

> The program in botany is designed for students who wish to become *professional botanists* or to enter the fields of forestry, conservation, agriculture or medicine. . . .
>
> *Students who intend to engage in professional work in forestry* may elect the Combined Botany and Forestry Studies program and, after the completion of the first three years of the botany major, may qualify to enter the Yale School of Forestry in their Senior year.[13] [*Italics added.*]

> Students considering doing graduate study in psychology should, very early in their undergraduate studies, discuss with a member of the departmental faculty how best to prepare for that later work.[14]

The present patternless mosaic in so-called liberal arts colleges justifies several questions. Can a set of generally acceptable objectives for liberal education be rediscovered? Are there in fact any principles on the basis of which unity can be restored to liberal education? Can the public generally assume that the graduates of liberal arts colleges possess certain knowledge, intellectual abilities, and traits of character which may be considered the attributes of a cultivated mind and a cultured life? A review of the current disordered educational scene gives little assurance of affirmative answers to these questions.

It *is* clear, however, that in order to restore liberal education to the central position it once rightly occupied in American higher education, the institutions which should provide that education must reaffirm their high purposes and pursue them with renewed dedication. This they cannot do until they are freed from the restrictions imposed by other much younger, but organizationally stronger, units in the American system of higher education, namely, the graduate schools, which continue to be animated by the spirit of the German university.

[12] Bulletin of Yale University, *Undergraduate Courses of Study*, Fall and Spring Terms, 1959–1960, Series 55, Number 6, 15 March, 1959, p. 54. (New Haven, Conn.)

[13] *Ibid.*, p. 60.

[14] *Ibid.*, p. 180.

Part II: RELATIONSHIP BETWEEN GRADUATE AND LIBERAL EDUCATION

The Dominance of the Graduate Schools

The decline of liberal education in this country parallels almost exactly the ascendancy of the graduate school. A review of the rise of the latter will show unmistakably that this relationship is not adventitious. On the contrary, it will disclose that this newer branch of higher education has had a direct and profound, and on balance a harmful, effect on liberal education and the institutions society believes it has established to provide such education. It will show that during the expansion of graduate education the liberal arts colleges began to surrender their independence. Gradually they relinquished the function which for centuries in British and later in American higher education had been their heritage and their glory, to wit, the function of instructing young people in the Western European intellectual and spiritual traditions. Such a review will show that with the rise of the graduate school liberal education became oriented toward new goals foreign to its nature.

Under the spreading influence of graduate education, the liberal arts colleges shifted their emphasis from teaching to research; from instruction concerned with the key ideas of Western culture to instruction composed of the latest findings in ever narrower areas of scholarly investigation; from a concern with the complete development of mind and

character which Milton believed fitted "a man to perform justly, skilfully, and magnanimously all the offices, both private and public, of peace and war" to the cultivation of the professional skills and the restricted subject matter of the various fields of intellectual endeavor—in brief, from the dissemination to the creation of knowledge. To a considerable extent the weaknesses, the ineptitudes, and the inadequacies of higher education today have their origin in these changes which occurred largely unnoticed by laymen, and which, further, were little understood by the profession.

The present shortcomings of liberal arts colleges, for many of which they are not culpable, cannot be corrected until some of the foregoing developments are reversed. This cannot happen until the coercive power of the graduate faculties over these institutions is exposed to public view and then ameliorated. Such a disclosure ought properly to begin with a review of the historical fact that the very educational leaders who were responsible for the establishment of the earliest graduate institutions recognized that *the purposes of advanced graduate study and those of undergraduate liberal education were incompatible and to some degree mutually detrimental.*

The builders of the American university foresaw that making research and the training of scholars a central activity in the enterprise of higher education would do what it has now actually done, that is, confuse the purposes of the liberal arts colleges and misdirect their efforts. As these pioneers apprehended, the supremacy of graduate education with its emphasis on research and the transmission of specialized knowledge has transformed and distorted the American academic community. The mores, the administrative organization, the rewards of academic life, the very tissue of the academic organism, have been so altered that liberal arts colleges have ceased to have a distinctive existence or mission. Worse, they are no longer free to determine the policies governing the education of their own students.

Nineteenth-Century Educators and the Separation of Graduate and Undergraduate Teaching

Leading academic figures of the late nineteenth century, foreseeing the incompatibility of graduate and undergraduate education, firmly advocated their separation. A few examples of their views dramatically reveal their awareness of the educational monstrosities that would issue from the union of these two ill-suited species. Charles W. Eliot, later responsible for placing the whole of undergraduate instruction at Harvard under the

dominion of the graduate faculty, in the early period of his distinguished forty-year presidency completely rejected the research function as a primary obligation of universities, to say nothing of colleges of liberal arts. At the outset of his administration Eliot gave scant regard to graduate work. In fact he depreciated the specialized activities of research. Henry James reveals Eliot's views on that subject in the following amusing anecdote:

> Professor C. L. Jackson relates that when he was a young teacher of Chemistry in the seventies he asked Eliot if he might be relieved of the duty of teaching one class in order to prosecute certain investigations. The President, in his stately manner, propounded a question to which an answer can seldom be given—"What will be the results of these investigations?" They would be published, was the reply. The President wanted to know where. Mr. Jackson named a German chemical journal. "I can't see that that will serve any useful purpose here," said Eliot, and therewith dismissed the matter.[1]

In his Inaugural Address Eliot firmly asserted the primacy of undergraduate teaching. On that occasion he stated flatly that "the prime business of American professors in this generation must be regular and assiduous classroom teaching. With the exception of the endowments of the Observatory, the University does not hold a single fund primarily intended to secure to men of learning the leisure and means to prosecute original researches."[2] Ironically, it was Eliot who later transformed the essential nature of college education by placing it in subjection to the graduate faculty.

Even those who, unlike Eliot, saw the necessity of firmly establishing research in American institutions of higher education recognized the fundamental difference between investigative activities and the teaching of undergraduates. Daniel Coit Gilman, for example, the first president of Johns Hopkins University, earnestly tried to persuade the trustees of that institution not to establish an undergraduate division but, on the contrary, to limit its services to high-quality instruction for promising research specialists. Moreover, when Gilman said in his Inaugural Address that "in the universities teaching is essential, research important," he clearly placed graduate teaching above research in his hierarchy of educational values. He held such deep convictions on this subject that even as late as his *Eighth Annual Report* he played down the research function, saying at that time: "I can never rid myself of the belief

[1] Henry James, *Charles William Eliot* (Boston: Houghton Mifflin Company, 1930), II, 19.

[2] *Addresses at the Inauguration of Charles William Eliot as President of Harvard University, Tuesday, October 19, 1869* (Cambridge: Sever and Francis, 1869), p. 54.

that the essential value of the university does not depend upon the discoveries it makes, or the knowledge it accumulates and imparts, but in the characters which it develops."[3] At the time of Gilman's presidency, however, the traditionally dominant position of the liberal arts college was still unassailable. Johns Hopkins had to fall in line with other universities and offer undergraduate instruction. Gilman, nevertheless, adamantly insisted that graduate and undergraduate instruction remain organically separated units and that none of the teachers in one serve in the other.

Originally, Gilman's distinguished contemporaries, Charles W. Eliot, William Rainey Harper, and G. Stanley Hall, accepted his division of undergraduate and graduate work. Like Gilman, all but Eliot, who already had a lusty college, objected strenuously to having undergraduate divisions attached to the universities over which they presided. But the English college transplanted to Massachusetts in 1636 was too firmly rooted in the American concept of higher learning. Each lost his fight for a separate institution that would be devoted to graduate teaching and research.

Although many American educators attempted to rationalize the separation of undergraduate liberal education and specialized graduate instruction and research, a Roman Catholic publicist in Ireland, John Henry Newman, made the most perceptive analysis of the two. Without depreciating research activities, he provided a conceptual basis for the distinction between investigation and teaching. He actually favored scholarly investigation but only as a function of organizations established specifically for the purpose. Newman accepted the division of academic labor then extant in Europe under which academies and research institutes completely outside the universities conducted factual research in the natural sciences. As the following quotation shows, he defended a specialization in these academic activities on grounds which exhibited greater insight into the varied psychological aptitudes, motives, and traits involved than is common in most present-day pronouncements on the subject:

> The nature of the case and the history of philosophy combine to recommend to us this division of intellectual labor between Academies and Universities. To discover and to teach are distinct functions; they are also distinct gifts, and are not commonly found united in the same person.[4]

[3] Daniel Coit Gilman, *Eighth Annual Report of the President of the Johns Hopkins University* (Baltimore: John Murphy & Co., 1883), p. 64.

[4] John Henry Cardinal Newman, *The Idea of a University* (New York: Longmans, Green & Company, 1955), Preface, p. xxx.

An American who, unlike Newman, had the onerous responsibility of managing a young and dynamic institution in a frontier society, nevertheless took essentially the same position in describing the functions he considered appropriate for the then recently established University of Michigan. Soon after he became president there, Henry Philip Tappan in 1855 said:

> It appears to us that this plan of the Corporation of Brown University is defective, inasmuch as it attempts a union in one institution of three different grades of education, which can be more philosophically and successfully conducted in three different kinds of institutions. We have here combined something of the University, a good deal of the College, and a good deal of the Commercial, Manufactural, and Agricultural School, in which the one element may preponderate over the others, but in which a harmonious action of the three, and a suitable development of all, it is hard to conceive of.[5]

Nevertheless, the unremitting efforts of those who idealized German higher education caused research activities to be grudgingly admitted as appropriate activities of universities. For some years, however, the leaders of higher education continued to consider such activities second in importance to undergraduate teaching.

The Emergent Twentieth-Century University

The earlier characteristics of academic life failed to survive the nineteenth century. Within several decades there occurred one of the most radical revolutions ever to take place in an ancient institution whose origins reached deep into the beginnings of Western culture. After the turn of the century the principal pursuits of faculty members in American universities were increasingly declared to be the prosecution of factual research, the training of apprentices in the techniques of investigation, and the teaching of the advanced knowledge needed to join the corps of research scholars to each succeeding generation of students. In the large universities at least, these functions came to enjoy a priority in substantially the foregoing order, with the teaching of undergraduates relegated to the status of Cinderella before she met the prince.

William Rainey Harper's statement in 1895, soon after he became the first president of the University of Chicago, foreshadowed the imminent reorientation of American higher education. His categorical statement that "the first obligation resting upon the individual members which compose it [the true university] is that of research and

[5] Henry P. Tappan, *University Education* (New York: George P. Putnam, 1851), p. 75.

investigation" [6] became the academic watchword of the day. His statement, "it is proposed . . . to make the work of investigation primary, the work of giving instruction secondary,"[7] also forecast the coming inferior and subservient position of undergraduate teaching. If Harper had had his way with Mr. Rockefeller, the chief benefactor of the University of Chicago, and with his trustees, the new university would have had no college. As at Johns Hopkins, however, social pressure forced a contrary action. A liberal arts college came into being, but in a distinctly secondary status. In theory, at least, all teaching in universities, including the undergraduate colleges, began to be indissolubly linked with investigative activities.

In these developments lie the origins of many of the present policies and mores of academic life, and also of many of its most vexing problems.

The Liberal Arts College: A Handmaid

The basic shift in emphasis in American higher education from teaching to research which occurred in a few prestige institutions might never have become universal had it not been for certain organizational and administrative innovations at Harvard University in 1890. In the years between the modest beginnings of graduate instruction around the 1860's and the year 1890, the position of graduate work in the entire enterprise of higher education became confused. Reversing himself completely in that year, Eliot advanced a new pattern of university organization. His proposal placed the control of curriculum policies and practices and the teaching procedures of the college in the hands of a graduate faculty whose interests lay increasingly in research and in the closely allied activity of giving advanced instruction. The following expression of the philosophy underlying the reorganization of 1890, in which Eliot emphasizes the similarity and the continuity of undergraduate and graduate instruction, reveals the radical change in his views since the first years of his presidency:

> . . . in any particular course there is absolute confusion between the college and university student; and I think this must be the case in all the universities here represented [Association of American Universities] . . . . I had occasion to point out not long ago that in the seminary courses, so called, at Harvard, one-sixth of all the choices were by undergraduates in Harvard Col-

[6] *Quarterly Calendar,* University of Chicago, Vol. 3, No. 5, May, 1895, p. 11.
[7] Thomas W. Goodspeed, *A History of the University of Chicago* (Chicago: The University of Chicago Press, 1916), p. 14

lege . . . there is the greatest possible mixture of what we call college men and university men in all our courses of instruction. . . .[8]

In 1890, then, the graduate and the undergraduate professors of Harvard became one corporate body, known as the Faculty of Arts and Sciences. In a penetrating study of the evolution of the administrative structure of Harvard University, Robert J. Wert, Vice Provost of Stanford University, shows how this transfer of the control of undergraduate instruction took place. After examining the pertinent historical documents, Wert concludes:

. . . he [Eliot] advocated the abolition of the main structural distinction between the College and the Graduate Department, and suggested implicitly that one structure, the Department of Philosophy, could combine the functions of education, whether preparatory, advanced, general, or special.[9]

A committee of eleven faculty members, authorized on November 19, 1889, to consider the reorganization of Harvard, obviously endorsed the plan proposed by the President. Thus in its report to the faculty in January, 1890, the committee proposed that:

The Graduate Department, Harvard College, and the Lawrence Scientific School, are under the charge of the Faculty of Arts. This Faculty consists of all professors and assistant professors in those departments and of all instructors appointed therein for a term longer than one year unless exempted by a peculiar tenure of office, or by a special vote of the Corporation and Overseers.

The Faculty of Arts is empowered to recommend to the President and Fellows candidates for the degrees of Doctor of Philosophy, Doctor of Science, Master of Arts, Bachelor of Arts, and Bachelor of Science.

The Graduate Department, Harvard College, and the Lawrence Scientific School are each under the immediate charge of an Administrative Board subject to the authority of the Faculty of Arts. . . .[10]

That these views were not altogether acceptable even at Harvard is clear from the statement of Dean Clement L. Smith, who ventured the opinion that perhaps a majority of the faculty favored a structural separation of the two levels of instruction. Indeed, some of the distinguished members of the faculty presented an alternative proposal which stated:

What is now known as the Graduate Department shall be organized as a School with a Dean and a separate Faculty as determined in ## 6 and 7 of the Statutes. This Faculty shall administer the degrees of A.M., Ph.D., and S.D.[11]

[8] Association of American Universities, *Journal of Proceedings and Addresses of the Fifth Annual Conference*, New Haven, 1904, pp. 40–41.

[9] Robert Joseph Wert, "The Impact of Three Nineteenth Century Reorganizations upon Harvard University" (unpublished doctoral dissertation, Stanford University, 1952), pp. 157–158.

[10] *Ibid.*, pp. 159–160. [11] *Ibid.*, p. 161.

But Mr. Eliot's view prevailed. The far-reaching influence of this reorganization at Harvard is patent in Wert's summary comment that "Every university of high degree in the United States now operates within the structural pattern originated at Harvard University in 1890."[12]

Within two decades critical observers saw the profound significance of this reorganization for the future of liberal education. As the graduate faculty rose to a position of complete dominance at Harvard and the doctorate became the *sine qua non* of academic preferment, William James, one of America's most brilliant scholars, in an article entitled "The Ph.D. Octopus," foretold the evils that have now been visited on the colleges because of their surrender to forces foreign to their traditional purposes. In typically lucid language he expressed the thoughts repeated through the intervening years by many other men of vision:

> First of all, is not our growing tendency to appoint no instructors who are not also doctors an instance of pure sham? Will any one pretend for a moment that the doctor's degree is a guarantee that its possessor will be successful as a teacher? Notoriously his moral, social and personal characteristics may utterly disqualify him for success in the class-room; and of these characteristics his doctor's examination is unable to take any account whatever. . . .
>
> The truth is that the Doctor-Monopoly in teaching, which is becoming so rooted an American custom, can show no serious grounds whatsoever for itself in reason. As it actually prevails and grows in vogue among us, it is due to childish motives exclusively. In reality it is but a sham, a bauble, a dodge, whereby to decorate the catalogues of schools and colleges.[13]*

James's views became widespread. Professor Walton B. McDaniel, professor of classics at the University of Pennsylvania, addressing himself to the impact of research on undergraduate teaching, in 1912 said:

> [There are young doctors] who, possessing a natural aptitude for thinking in millimeters, find in the minutiae of their doctoral training life's great attraction, and commence a long career of closet-study, which is interrupted only by the demands of such physical functions as eating and sleeping, and totally unfits them to inspire the American boy with anything but disgust.[14]

[12] *Ibid.*, p. 182.

[13] William James, "The Ph.D. Octopus," reprinted in *Memories and Studies* (New York: Longmans, Green & Company, 1912), pp. 337–338.

* In this part of the discussion the author is indebted to Dr. Glenn A. Reed for the comprehensive and critically appraised material in his dissertation. Anyone attempting to understand the historic impact of the graduate school on liberal education should not fail to read Dr. Reed's thesis and others done under the direction of Professor W. H. Cowley: "Conceptions of Leading Nineteenth Century Educators Concerning the Relationship of Teaching and Research," by Edwin D. Smith; "Conceptions of Leading Twentieth Century Educators Concerning the Relationship of Teaching and Research," by Franklin MacDonald; and Dr. Wert's, mentioned above.

[14] Walton Brooks McDaniel, "Research and the Degree of Doctor of Philosophy," *The Classical Weekly*, V (February 10, 1912), p. 116.

The next year President John Grier Hibben of Princeton added his voice to other critics in foretelling the shape of things to come when he expressed the opinion that:

> The restricted field of investigation demanding an intensity of sustained application and concentrated attention is in itself conducive to a narrowing of scholarly interest, to a limiting of the sources of knowledge, and to a circumscribing of the range of desire and appreciation. The very success, moreover, which may attend the special inquirer may lead him to indulge in a spirit of pedantry which is always to be regarded as a symptom of defect or disease in scholarship. There is also a certain pharisaism which is always a sure indication of superficial attainment. The pharisaical spirit which indulges in the complacent contemplation of one's own attainment is wholly devoid of that true sense of proportion which enables a man rightly to view his own knowledge in reference both to the known and the unknown.
>
> There is also in these graduate years of study a tendency to bring about an aloofness of scholarship, a detachment from the world of human affairs and activity, and a dearth of human sympathies.[15]

These criticisms were no passing phenomenon. After reviewing the new order in higher education over more than a quarter century, Professor Carl Holliday of the University of Montana observed that:

> For three decades or more the universities and colleges of America, imitating the colleges of Germany, have been "doctored" to the limit, and the resulting specialization has filled the soul of the undergraduate with unutterable weariness. Young doctors of philosophy, fresh from the prolonged study of some remote nook of science or literature, have been turned loose on freshmen and sophomores and have bored them to desperation with minutiae.[16]

As the years passed, the situation grew worse rather than better. One of America's most celebrated historians, James Harvey Robinson, a person no one could accuse of being opposed to research, in 1923 wrote a penetrating treatise on education entitled *The Humanizing of Knowledge*. According to Glenn A. Reed, in this publication Robinson

> . . . took up the cry to humanize rather than fragmentize knowledge. He insisted that a new type of teacher and scholar was needed who would interpret and reveal knowledge as well as extend it. The fragmentation of knowledge, said Robinson, may have served a significant purpose in research, but it formed a barrier to education: "Specialization, so essential in research, is putting us on the wrong track in education." Robinson believed that the humanizing of knowledge involved the process of divesting it of its abstract

[15] John Grier Hibben, "The Type of Graduate Scholar," in *Proceeding of the Association of American Universities,* Fifteenth Annual Conference, 1913, p. 24.

[16] Carl Holliday, "Our 'Doctored' Colleges," *School and Society,* II (November 27, 1915), pp. 782–783.

and professional character. Separation and departmentalization may be important to research; they act as barriers to the diffusion of knowledge.[17]

More recently James Bryant Conant, President of Harvard University, who for some years attempted to restore unity to the college program through courses in general education, spoke of the unfortunate specializing tendency of graduate programs in the following words:

> Separate, compact groups of graduate students have been formed, each largely impervious to those broadening educational forces which are supposed to be characteristic of the atmosphere of a great university. Within limits the creation of an *esprit de corps* in a professional school is of the greatest value; but in the present age little effort need be directed toward increasing the spirit of specialization. Rather it seems important to build backfires which will keep this spirit of separatism within limits.[18]

All through the years since 1900 the proceedings of educational conferences, reports of presidents of liberal arts colleges, and statements by scholars in learned journals have reiterated the charge that the policies and practices of the graduate schools have had an adverse effect on the liberal education of American youth. It is a shocking paradox of American cultural life that the controlling bodies of the profession and the laymen who in this country have final jurisdiction over academic institutions have completely disregarded these persistent strictures of able, informed, and worried men.

College Teaching: The Professor's Extracurricular Activity

The relationship which exists between the graduate school and the liberal arts college is at the basis of many of the deficiencies of contemporary liberal education. The domination of the graduate schools has deprived liberal arts colleges of their intellectual heritage and of their unique teaching function. Small institutions which rightly have never aspired to university status have been forced, often with a sad wastage of their limited means, to adopt practices in direct conflict with their reasons for existence. Extramural bodies with purposes basically different from those of liberal arts colleges have nevertheless dictated the latter's policies with regard to faculty appointments, promotions, salaries, laboratory and library facilities—indeed all the practices and characteristics which determine the essential nature of an institution. Samuel P. Capen, for a

[17] Glenn A. Reed, "Criticisms of the American Graduate School 1900–1945" (unpublished doctoral dissertation, Stanford University, 1950), p. 225.

[18] James B. Conant, *Report of the President of Harvard University to the Board of Overseers, 1936–1937* (Cambridge: Harvard University, 1938), p. 22.

quarter century one of this country's most perceptive students of higher education, in a plea for specific training for college teachers described the subtle influence of these forces as follows:

> Now I think that it is fair to assert that the vast majority of college teachers are not interested in research and that they have no special talent for it. Moreover, as colleges are now administered, they have little opportunity for research after appointment to a college staff.[19]

And he added:

> The teachers suffer because they are not trained for what they have to do; because the task of leading adolescents to knowledge and wisdom and self-control —the task which they have elected—has slight connection with productive scholarship; because the professional rewards go not to the successful performance of this task but to something quite aside from it.[20]

Under existing circumstances it is not surprising that many faculty members, even in the small independent liberal arts colleges, occupy themselves with research activities often resulting in nothing which by any stretch of the imagination could be called an original contribution to knowledge. Moreover, the knowledgeable and ambitious college teacher commonly concentrates his energies, not on undergraduate instruction for the run of college students, but rather on the teaching of departmental majors and on research. These activities, he observes, lead to promotion and, with good fortune, to employment in a larger and better-paying institution, which may further reduce his undergraduate teaching and enhance his opportunities for research.

Fortunately, in spite of the invidious material rewards given to those who do research and give advanced instruction, some altruistic men and women, after obtaining their graduate degrees, unreservedly dedicate their lives to undergraduate teaching. They consecrate themselves to the exciting and rewarding task of cultivating the knowledge and skills and shaping the character of the youth who come under their tutelage. Many of these devoted teachers do not attempt to make original contributions to knowledge. They do not seek advancement to the large universities. With wisdom and a feeling of personal security they recognize their immense and unique contribution to the lives of young people and to the welfare of their country. *The nation urgently needs legions of such dedicated teachers, but where legions are needed only platoons are enlisted.*

[19] Samuel P. Capen, "Preparation of the College Instructor for His Job," *Proceedings of the Fifty-ninth Convocation of the University of the State of New York, October 18 and 19, 1923* (Albany: The University of the State of New York Press, 1924), p. 13.

[20] *Loc. cit.*

The percentage of faculty members in liberal arts colleges who voluntarily accept this type of existence is regrettably small. The material, the psychic, and the social rewards of the teaching profession now go largely to those who conform to the pattern of conduct prescribed by the graduate schools. The academic guild naturally reflects the status-seeking motivations of American society at large. Hence, it is not surprising that colleges have difficulty getting and keeping teachers who have been trained to teach and who wish to do so.

Although the graduate faculties are largely responsible for the present shortage of college teachers, that is not their sole adverse effect on liberal arts colleges. In a measure the graduate schools deny society the services which the colleges ought to perform by transforming them from institutions for general education into agencies for the initial vocational education of scholars. They produce college teachers prepared not primarily for their chosen work but rather for research activities of a limited character. Through the control of the political machinery in the academic community they determine the policies governing promotions and salaries. By their arrogation of the authority to define the conditions of professional advancement in terms of research and publication they divert the energies of college teachers from their proper employments.

Further, they consistently oppose, often with shocking success, the attempts of liberal arts colleges to resume the time-honored function of providing a general education for youth regardless of their vocational objectives. But, most important, they have splintered the corporate body which once was the liberal arts college into small and often completely unrelated departmental units. They have thus transformed the unified college curriculum into an agglomeration of subjects typically assembled in meaningless patterns according to the whims of students or more commonly their departmentally loyal advisors.

Hope for the Future

Only drastic reforms in graduate education will permit a much-needed reorientation of liberal education. Before any substantial reconstruction can occur, however, the purposes of graduate education must be revised and clarified. Until graduate faculties subject themselves to a sincere self-examination and consciously determine what they ought to be about no amelioration of the present unhappy state of affairs can be expected. Until these bodies redesign their programs to achieve several different but equally important objectives the liberal arts colleges will not be able once again to fulfill their crucial functions. Nor, it may be added, will

high-level imaginative research be as common as the national welfare requires. It is urgently necessary that the graduate schools recognize the increasing demand for college teachers and design specific programs for their training.

Many studies have been made through the years, and many conferences held, to determine the kind of training appropriate for those who intend to, or will by force of circumstances, spend their lives in college teaching. In recent years such analyses have also commonly reported the impending disastrous shortage of college teachers. The most recent major report of this type was prepared by fifteen ranking educators under the auspices of the Fund for the Advancement of Education, and issued in December, 1955. The findings on the need for teachers are so significant that they deserve quotation in full. After discussing prospective enrollments in 1970, the report states:

> It is estimated that between now and 1970 some 484,000 new teachers will need to be trained in order to cover both the replacements anticipated and the additional enrollment expected. As against this requirement, it is estimated that between now and 1970 only about 135,000 doctorates will be awarded.
>
> Even if all these new Ph.D's were to become teachers, we would by 1970 need approximately 350,000 more college teachers than we shall probably train in our doctoral programs.[21]

These figures show that the liberal arts colleges, especially those which are not integral parts of a university, cannot possibly staff themselves with adequately prepared teachers. Should the graduate schools immediately take every feasible step to increase the outflow of prospective college teachers (and academic life being as resistant to sudden change as it is, few will do so), the quality of liberal education would for some years nevertheless deteriorate.

A study of the Research Division of the National Education Association reveals that the level of graduate education among college teachers even in terms of the present defective standards has already begun to fall. It states that *"since 1953–54, holders of the doctor's degree among newly employed full-time teachers* [college and university] *have decreased 25.2 percent and those with less than the master's degree have increased 26.9 percent."* [22] In the immediate future college enrollments will rise dramatically. The consequent increased competition for teachers, accompanied by rising salaries, will doubtless lure many away from

[21] *The Graduate School Today and Tomorrow,* Report of a Committee of Fifteen, The Fund for the Advancement of Education (New York, 1955), p. 7.

[22] National Education Association, *Teacher Supply and Demand in Colleges and Universities 1955–56 and 1956–57* (Washington, D.C., 1957), pp. 17–18.

graduate schools before they have finished their formal preparation for college positions. Colleges and universities will, therefore, repeat the experiences of the lower schools, where continuing shortages have produced makeshift devices such as emergency certificates for inadequately prepared teachers.

And the independent liberal arts colleges in which, it should be remembered, many of the future teachers and scholars in all types of institutions receive their basic education, will be the most severely handicapped by staff shortages. *It is an arresting paradox that a nation like the United States, recognized for its ability to "get things done" and wealthy beyond the wildest dreams of Utopian visionaries, should stand virtually paralyzed before a national problem of such fundamental significance to its domestic well-being and its international position.*

Required Changes in Graduate Education

No panacea exists for the deepening shortage of college teachers. If, however, graduate schools would now begin to make necessary changes in their policies and practices, they could considerably ameliorate a situation which otherwise will severely debilitate American life. The achievement of this desirable social objective will depend upon the willingness of graduate schools to take the following actions:

1. Provide programs for intending college teachers that are somewhat different from those for other graduate students who expect to make research their primary work and have a demonstrable aptitude for and interest therein.

2. Broaden the education of future college teachers throughout the undergraduate and graduate years. Since the bulk of the instruction which faculty members in liberal arts colleges give is in the main general education, the training of such teachers will be more effective if it extends beyond a single department or discipline.

3. Establish the meaning of the research requirement for the Doctor's degree with more realism and candor than have characterized past treatments of this crucial subject.

4. Require that future college teachers attend a seminar for at least one academic year, preferably the last in graduate school, to gain an understanding of the whole enterprise of higher education and the place of their own work in it.

5. Require that prospective teachers serve an apprenticeship in a college classroom under the supervision of an accomplished teacher *before* assuming sole responsibility for instruction.

1. DIFFERENT PROGRAMS FOR COLLEGE TEACHERS

Anyone who has done research and also taught college students knows that, though a few persons can do both with equal effectiveness, the two activities require different skills. In the first place, the former demands primarily private and the latter normally public application. The personality traits required in each, therefore, differ. Although some versatile human beings possess both to an adequate degree, these persons do not represent the majority. Nor does the claim that "good teachers are born" necessarily hold true. Individual abilities and tastes do exist, and they account for the fact that accomplished investigators may not always succeed as teachers of undergraduate students. Brilliant teachers of youth, on the contrary, often lack the interest or motivation to pursue basic research, and when forced to engage in it to gain professional recognition, more often than not produce pedestrian results. The components of knowledge, skills, and traits required in these two types of professional activities differ sufficiently to justify, indeed to necessitate, different kinds of training.

It should be recognized at the very outset of any effort at reform that the present practice of subjecting teachers and researchers to the same graduate requirements has produced fewer highly skilled researchers and fewer efficient teachers than would otherwise have been possible. While prospective college teachers spend a varying number of years mastering the techniques of, and presumably acquiring a taste for, factual research, this very emphasis on research prevents them from gaining the capacious knowledge, the habits of intellectual self-enlargement, and the complicated skills of a different and an exceedingly demanding occupation.

Of all the professions only college teaching requires a type of training which bears little relationship to future practice. Only in this profession do many of those who aspire to membership have little taste or talent for the activities which their training putatively prepares them to perform. Under the circumstances it is not surprising that in the fields which have been studied, from two-thirds to four-fifths of those who receive the Ph.D. degree never do another piece of research worthy of the name.

The facts of psychology provide cogent argument for establishing somewhat different educational programs for research and for college teaching. Only a small number of persons possess the imagination and the boldness to think at highly creative levels, certainly far fewer than the number needed in college teaching. The intellectual operations of an

Einstein, Toynbee, Bohr, Picasso, Oppenheimer, or Frank Lloyd Wright differ so markedly in degree in the capacity for inventive conceptualization that their thinking virtually differs in kind from that of other competent scholars.

Modern means of identifying unusual abilities of all kinds makes possible differential educational treatment for those of diverse talents and interests. The education for research of those with highly original minds would be strengthened and their potential contribution to society enhanced if their training were different from that now generally prevailing under the large-scale production methods of the graduate schools. A former dean of the Graduate Faculties at Columbia University has documented this statement by showing the heavy load of clerical and semi-administrative chores graduate teachers are now expected to carry because of the great variety of students admitted to candidacy for degrees.[23] Many students who satisfactorily complete their course requirements work for years in desultory and uninspired fashion on a project which can only be euphemistically described as imaginative research. Hence, graduate professors misspend on poor risks or worse valuable time which could be used in teaching the skills of scholarly investigation to genuinely qualified students.

Russian advances in science and technology have exercised many Americans. That the Russians have passed us in some branches of theoretical research and have equalled our achievements in others seem reasonable assumptions. Recognition of the chaotic condition of the Russian scientific enterprise and school system only a third of a century ago—at a time when ours were already well established and tolerably effective—makes their accomplishments all the more remarkable and disturbing.

Searching for a scapegoat for our recent intellectual humiliation has become a popular exercise. Some lay the cause of our inadequacy at the schoolhouse door, and with some justification, for many children are still educationally underprivileged. Nevertheless, our schools have provided for thousands of young men and women the best basic education in the world in the sciences, in mathematics, and in the arts of communication. Colleges attest the excellence of their education as they energetically compete for these students by offering scholarships and other advantages. Later the graduate schools think well enough of them to provide further inducements to advanced study. It would seem reasonable to assume that at least these graduates of the schools and colleges are qualified by nature and by education to rival the products of

[23] Jacques Barzun, *Graduate Study at Columbia, The Report of the Dean of the Graduate Faculties for 1958* (New York: Columbia University Press, n.d.).

the foreign school systems so much admired by some critics of our own.

But as several prominent American scientists observed during World War II the products of our graduate schools had not on the average made contributions in fundamental theory comparable to those of European scholars. In view of the excellent preparatory education many American youth receive it would be wise before projecting our alleged national inadequacies wholly on to the lower schools to examine the proposition that these shortcomings may result from the prevailing confusion of purpose and the ineffectiveness of operation of graduate institutions. In any event those who seek truth rather than shelter from public criticism have a moral responsibility to test the hypothesis that many of the best minds are repelled by the routines of graduate education or are intellectually devitalized by the dullness of its exercises. It is possible that if the training of potentially creative scholars received the compelling attention it deserves, the aggregate of their numbers and their productivity would rise perceptibly.

Over a quarter century ago a minority of distinguished research scholars in the various disciplines saw the harmful effect on research of the failure of the graduate schools to clarify and particularize their functions. In the early thirties a commission of the Mathematical Association of America, including some of the country's ablest mathematicians, examined the policies, processes, and products of graduate education in mathematics. Among other things this commission discovered that existing Ph.D. programs produced too few productive scholars. After reviewing the publications of those who had received the Doctor's degree some years prior to the investigation, the commission concluded:

> . . . it is no apparent overstatement to assert that, under present conditions, at least 80 per cent of those receiving the doctorate in mathematics will publish no useful research beyond their doctoral theses and closely associated results. The training for research must therefore be justified for most candidates, if at all, on other grounds than their contributions to the advancement of mathematical research, as that term is customarily understood.[24]

These findings substantially duplicated those of Jernegan's study of the productivity of historians in which he found that "less than twenty-five per cent of the doctors of philosophy in history are consistent producers."[25]

[24] Commission on the Training and Utilization of Advanced Students of Mathematics, "Report on the Training of Teachers of Mathematics," *American Mathematical Monthly*, XLII (May, 1935), p. 265, published by the Mathematical Association of America, Inc., at the University of Buffalo, Buffalo, N. Y.

[25] Marcus W. Jernegan, "Productivity of Doctors of Philosophy in History," *The American Historical Review*, XXXIII (October, 1927), p. 2.

The primary concern here, however, is with the impact of present policies and practices in the graduate schools on the education of college teachers. In discussing the type of graduate education needed by future college teachers consideration of the uses to which knowledge is put in various types of educational programs is essential. When this is done three major ways of organizing and disseminating knowledge emerge. One concerns primarily the education of citizens generally, regardless of their occupations; a second, instruction for professional practice; and a third, the research activities of scholars in the universities. Although these categories overlap to a degree they can be profitably separated in discussing the varying functions of knowledge in different types of education.

In 1926 Professor Wilder D. Bancroft of Cornell University, seeking a term to describe the knowledge in chemistry organized and communicated for the benefit of all people, employed the word *pandemic*. Etymologically, the choice was apt because it denotes the corpus of fact and theory which all educated citizens ought to possess even though they can pretend to no special knowledge in a given field such as chemistry or philosophy. This kind of learning has more recently been included within the concept of *general education,* that is, education broadly inclusive in scope and related to the usual business of life contrasted with the particular knowledge and activities of a vocation.

Some years later, while seeking for companion phrases to describe the two other uses to which knowledge is put in education, Professor W. H. Cowley of Stanford University coined a similar and somewhat more descriptive term to denote general education for all. His word is *democentric* (centered in people). Fortunately he added two other terms to identify knowledge used in the instruction of practitioners of the professions and in the teaching of future creators of knowledge, that is, scholars. These types of knowledge and the teaching functions related to them, Cowley terms *practicentric* (centered in practice, that is, concerned with the education of practitioners), and *logocentric* (centered in knowledge per se). Much of the present confusion and fruitless controversy would disappear if the connotations of these terms were generally understood.

This treatise principally concerns the impact of graduate school practices on the *general* education of undergraduates. Hence, more consideration is given to the distinctions between *democentric* and *logocentric* teaching. Instruction concerned with *practicentric* knowledge, the other element in this tripartite division, is of no less importance; but since other monographs in this series concerned with a number of

the undergraduate professional schools will deal extensively with problems of curriculum and instruction in those fields emphasis here is primarily on *democentric* and *logocentric* knowledge and the teaching functions related thereto.

Nevertheless, it is necessary at this point at least to make clear that *practicentric* teaching for the training of future members of the professions is increasingly a function of liberal arts colleges, and therefore deserves consideration in any discussion of the influence of graduate education on these institutions. The trend since 1900 has been toward the inclusion in liberal arts colleges of two types of vocational education. The first is terminal in the sense that graduates immediately enter gainful employment as, for example, those in accounting or medical technology. The other is preparatory since those who receive Bachelor's degrees continue their education in such institutions as medical, law, and dental schools or the graduate schools of arts and sciences. Another study of the Institute of Higher Education shows the growing proportion among liberal arts college students of those who elect programs leading to the foregoing vocational goals.[26] Programs of varying but unmistakable vocational content have been designed to serve these students.

Practicentric knowledge and its uses in liberal arts college teaching are, therefore, matters which the graduate schools must be concerned with because many of their products enter *practicentric* teaching. Such professional schools as engineering, business administration, and a host of others also require large numbers of these *practicentric* teachers of undergraduates. Although this subject is treated more fully in other publications of the Institute, it should be emphasized here that the broadening curriculum trends in these professional schools, with increased emphasis on principles rather than on isolated facts, create a demand for teachers no less broadly educated than their associates in the liberal arts colleges.

In clarifying the difference between the knowledge used in the education of undergraduates in general education and graduate students in specialized courses, Bancroft's early statement deserves quotation It was his opinion that:

> The universities have two functions in the teaching of the sciences. They should teach a science as a professional study and as a cultural study. In the case of chemistry the universities teach chemistry fairly well as a professional

[26] Earl J. McGrath and Charles H. Russell, *Are Liberal Arts Colleges Becoming Professional Schools?* (New York: Bureau of Publications, Teachers College, Columbia University, 1958).

subject for the chemists, the medical men, the biologists, the engineers, etc. So far as I know, there is no university which now teaches chemistry as a cultural study—as a part of a general education. . . .

The course in general chemistry does not cover enough ground to be of real value to the student seeking a general education and it goes into far too much detail for him. The better it is as a professional course the worse it is as a cultural course. . . .

Since chemistry is the fundamental science, one which we are always encountering in some form and in some place, it is particularly desirable that everybody should have some knowledge of chemistry; and yet the teaching chemist does nothing to make this possible.[27]

Although in this statement Bancroft writes only about instruction in chemistry, later in the same article he observes that similar teaching is required in the other disciplines if the "educated" members of the community are to understand and conduct themselves intelligently in the complicated world in which they live.

Many of today's most bothersome problems in higher education relate to the profession's failure to identify these three ways of organizing and disseminating knowledge and the distinctive educational functions which they serve in college and university teaching. The professional and graduate schools have been moderately successful in organizing and using material for *practicentric* and for *logocentric* teaching. Because of the preoccupation of graduate faculties with *logocentric* activities educators even in the colleges have been much less effective in, and regrettably often indifferent to, the selection and organization of knowledge appropriate to *democentric* instruction. Yet all students in both liberal arts colleges and undergraduate professional schools urgently need this type of teaching. It also satisfies the requirements of adults who wish to gain a general comprehension of a subject, without having to traverse the expansive and often trackless forests of esoteric learning which enclose the small patches of knowledge relevant to their purposes.

The acceptance of this threefold classification of knowledge by those who have responsibility for determining the purposes, structure, and content of higher education would materially allay the wasting conflicts which now occur between the proponents of special and of general education, and between those concerned respectively with undergraduate and with graduate studies. Then the contending groups might agree that though all are equally important, these three kinds of instruction differ sufficiently to necessitate somewhat different types of graduate education. Until the graduate enterprise undergoes the alterations

[27] Wilder D. Bancroft, "Pandemic Chemistry," *Journal of Chemical Education*, April, 1926, pp. 396–397.

implied by this professional division of labor, the purposes and the character of the various branches of our system of higher education will remain confused. Consequently their work will be less effective than it could be.

In terms of numbers the most urgent demand at present is obviously for teachers capable of giving *democentric* instruction, and it increases annually with alarming speed. Thousands of *democentric* teachers are needed—teachers capable of instructing the approaching mass of students who will need a general education as complete and as essential as the training they will receive for their specialized vocational activities. The report of the Fund for the Advancement of Education already cited shows unmistakably that under present conditions these indispensable teachers will not be available.

2. BROADER GRADUATE EDUCATION

At present the education of college teachers, at least that part of it obtained in the graduate school, is not, as Milton would have it, "complete and generous." On the contrary, it is partial and niggardly. Among those who choose a teaching career early the narrowing of intellectual interests often begins in undergraduate days, or even in secondary school. The personal inclinations of college students or, more commonly, the persuasions of representatives of their major disciplines, cause them to elect more and more instruction from a single department or related field and less and less from the areas of knowledge remote from their specialty. When they begin graduate work the selection of courses is constricted still further.

The youth who becomes interested in living things will serve as an illustration of the process of creeping intellectual specialization. In high school he may realize for the first time that many of the things which excite his interest are treated in biology. Exploring this comprehensive subject as a possible occupational field, he learns that the biological sciences are divided into two major branches, zoology and botany, and that the former attracts him more than the latter. But as he proceeds up the academic ladder he discovers that zoology, too, is subdivided into specialties. Consequently, when this prospective teacher of biology enters graduate school he limits his study to, say, invertebrate organisms. Later his interests are narrowed to bacteriology, then to the study of viruses. As he selects a research project for his dissertation, conventionally the principal requirement for the Doctor's degree and hence for employment, this embryonic college teacher will probably be concerned

with the behavior of a particular variety of virus under a limited set of controlled circumstances.

Similar specialization commonly occurs in the other infinite divisions of modern learning. This pyramiding of education usually results in a corresponding shrinkage of intellectual interests. Scholars disagree as to whether the present narrowing specialization is conducive to the most imaginative and fruitful research. That it imposes serious handicaps on the future college teacher, however, is clear from an analysis of the types of instruction required in colleges of liberal arts and in the undergraduate professional schools. Specialization obviously limits the student's education for the more inclusive aspects of civic and personal life. As fas as professional school graduates are concerned, it is not surprising that the products of this type of education prefer to offer instruction in a limited field of specialized knowledge. That is where their competence lies.

If liberal arts colleges were sticking to their last, however, most of the instruction offered would not stand high in the subject-matter hierarchy. These institutions should properly concern themselves primarily with broad liberal education and with the basic instruction needed by those intending immediately to enter employment or a graduate or professional school. Undergraduate institutions should rarely offer a departmental sequence of more than four or five courses. Some have criticized the American Chemical Society for imposing heavy course requirements on colleges seeking its accreditation. The fact is that this body specifies only five courses in chemistry, and many members of the Society deprecate the offering of instruction in specialties above the prescribed level. Yet in numerous liberal arts colleges the teaching in many fields includes advanced specialized courses far above the needs of even those undergraduates intending to continue their formal education beyond the Bachelor's degree.

Through this virtually universal habit of expanding specialized offerings in the upper years, colleges have largely surrendered their heritage of liberal learning. Their traditional distinctiveness, it must constantly be remembered, has been broad education.

The offering of numerous advanced courses more fitting in a graduate or professional school otherwise weakens liberal arts colleges. It is a principal cause of the financial difficulties which ubiquitously afflict these institutions. Inordinately expensive, such instruction in the final analysis lowers faculty salaries and consequently makes the profession less attractive to promising young people. If liberal arts colleges con-

tracted their offerings their proper purposes would be better served and their financial problems correspondingly alleviated.

Colleges will find it exceedingly difficult, if not impossible, to make the necessary changes in their programs, however, until graduate schools turn out teachers with less restricted academic interests and with greater dedication to the important task of broadening the knowledge and increasing the intellectual range of undergraduates. Concretely this means that graduate education for future teachers of sociology, for example, ought not be limited to this field. Rather it should include considerable experience in the related social sciences of economics, psychology, and political science. Similarly, future teachers of physics ought to study chemistry, geology, and astronomy. With proper advice those who intend to enter college teaching will begin to broaden their education in their undergraduate years while they simultaneously deepen their learning in a single discipline. Both processes must continue in the graduate years.

The customs, if not the rules and regulations, of graduate faculties normally confine the prospective college teacher to a severely limited range of learning and thus prevent his being educated for his future professional duties. With notable exceptions, the graduate experience does not cultivate the capacity for the interrelation of facts and theories which is indispensable in successful undergraduate teaching. Indeed, too commonly the practices of graduate schools do the very reverse. By requiring students to devote almost their whole time to the deeper and deeper penetration of narrower and narrower areas of learning, they discourage, if not bar, the intellectually adventurous student from ranging widely even in fields adjacent to his own. They concentrate his attention on the minutiae of specialized knowledge and foster the processes by which it is created. The result is an individual inadequately prepared for the normal teaching obligations of a faculty member in a liberal arts college, and regrettably a person often conditioned by his graduate experiences to view these duties as necessary evils endured for the privilege of teaching advanced courses and doing research.

Until the studies, the research experience, and the dissertation are such as to enable many more students to extend their graduate experience beyond the boundaries of a single discipline, colleges cannot hope to obtain nearly enough of the kinds of teachers they so urgently need. A mere stringing of the beads of unrelated courses in the natural sciences, the social sciences, or the humanities along a curriculum thread will, however, be little better preparation for the college teacher than the present piling up of blocks of specialized courses in a single discipline. What is required is instruction which causes the student to see

and to understand the relations between the facts and theories of various subject matters and thus to gain a comprehensive knowledge of the structure of learning and the complex conditions of life.

James Harvey Robinson, the celebrated historian, saw the need for this type of teaching if our people were to gain the comprehensive knowledge and the critical faculties required to deal with the complex problems of modern life. Pleading for teachers who could bring order into the fragmented learning of the researcher he stated that:

> . . . our knowledge of man and his world must be reordered and restated; it must be put together anew with full regard to the ways in which the average person accumulates knowledge. It must be resynthesized. It is plain that we need a new class of writers and teachers, of which there are already some examples, who are fully aware of what has been said here and who see that the dissipation of knowledge should be offset by a new integration, novel and ingenious, and necessarily tentative and provisional. They should undertake the conscious adventure of humanizing knowledge. . . .[28]

Although most of the college instructor's teaching assignments will lie within a single department, college teachers as they come from the graduate schools may today be reasonably expected, as part of their normal continuing professional activities, to teach comprehensive courses involving several disciplines, instruction now usually classified under the term general education. In the years ahead the demand for this type of instruction in the early years of the undergraduate colleges, both liberal and professional, will be great. College teachers can be properly prepared for their professional responsibilities as the members of other professions are specifically trained for theirs only as (1) the subject matter of the usual graduate program for future college teachers is expanded, (2) more time is given to broad study and less to factual research, (3) dissertations more commonly treat subjects which require reflective criticism and synthesis of pre-existing facts, and (4) the arts of communicating knowledge intelligibly receive more attention.

3. RESEARCH PROJECT FOR COLLEGE TEACHERS

One of the principal obstacles to the development of a suitable graduate program for college teachers is the confusion about the meaning of the words "scholarship" and "research." If the term "research" is used restrictively to refer only to the type of investigation which results in an "original contribution to knowledge," then no one can pursue a life of scholarship except as he continuously engages in research. This view was responsible for much of the creative activity in the

[28] James Harvey Robinson, *The Humanizing of Knowledge*, rev. ed. (New York: George E. Doran Co., 1926), p. 70.

world of learning in the past century. It was the dominant philosophy in the period when German university practices were transplanted to this country. Within its own proper sphere of applicability it remains the most productive method for expanding human knowledge and a singularly effective instrument for cultivating the intellectual curiosity basic to the persistent search for reliable knowledge. Employed exclusively in the pursuit of truth, however, it can lead to an impoverishment of learning and life, as well as to intellectual habits hardly less restrictive than ignorance itself. An overemphasis on the production of new facts through original research has distorted the purposes of graduate education in some fields of intellectual endeavor. This stress has also diverted college teachers from their principal purposes—the transmission of existing knowledge, the cultivation of intellectual skills, and the development in students of a philosophic view of the whole of existence.

The restoration of liberal learning demands that the meaning of scholarship and of research be so clarified that graduate programs for those preparing to devote their lives primarily to undergraduate teaching and to factual research respectively can be differentiated. A beginning could be made toward this end by agreeing that though all teachers must be scholars, they need not be engaged in research in the sense of making original contributions to knowledge.

One kind of investigation, which may be termed factual research, is calculated, as the name implies, to add new facts to the general store of knowledge. This is the type of research which the German university of the nineteenth century made illustrious in the world of learning. It is usually concerned with an analysis of some limited sphere or aspect of reality isolated and to the degree possible controlled for purposes of observation. The physical sciences supply the readiest examples of this type of investigation both in their procedures and in the constantly expanding body of new facts. Some, though a shrinking number, continue to describe science, and indeed all other varieties of learning, in terms of this body of factual material.

Another procedure in advancing knowledge is concerned not with analysis, with breaking up phenomena into smaller and smaller constituent units, but rather with the reverse, with synthesis or the reassembling of facts into more comprehensive meaningful units. This process of conceptualization is a second and really the indispensable component of creative research. In speaking of the relative value of building new bodies of fact and designing new concepts James Bryant Conant says:

Science advances not by the accumulation of new facts (a process which may even conceivably retard scientific progress) but by the continuous development of new and fruitful concepts.[29]

The fact is that conceptual and factual research must interact and support one another. And to a degree any investigation involves both. But the insistence that each candidate contributes a new factual building block to the edifice of knowledge has resulted in much inane intellectual labor and deception. It has also caused many college teachers to neglect the type of conceptual investigations in their own teaching fields that would have kept them alive intellectually. By constant reading, by critically evaluating existing factual material, and by observing new conceptual meanings in the subject matter of their special fields they would have enriched and broadened their teaching of undergraduates.

Some years ago Robert M. MacIver addressed himself to the need for a new emphasis in research in the social sciences when he said:

To-day the materials for our building are better and more plentiful—and here we give grateful thanks to the quantitative workers. The bricks and the mortar, the steel and the lumber, are being prepared. The bricklayers and the hodmen, the masons and the carpenters, the riveters and all the rest are ready. Now we must pray that the architects also arrive, . . .[30]

Though this statement may appear to depreciate unnecessarily the factualist investigator it does highlight the need for those who can see meaning in, and generalize, the vast bulk of existing but fragmented knowledge. Such persons are greatly needed to advance research, especially in the humanities and the social sciences where the idolatry of *Wissenschaft* has produced much unimaginative research. But such persons are as much needed to revitalize the activities of the classroom by introducing students to the broader meanings and implications of the subject, and by cultivating the very processes of conceptualization required in the solution of many of life's problems.

Democentric teachers could, therefore, be well prepared for their professional responsibilities through graduate programs which permitted broader, synthetic research activities. In this sense all teachers will be scholars and investigators. All will be in touch with the advances in their fields, indeed more broadly so than at present because they will not be limited in their studies to a narrow subject. All will be capable of learned publication though the product of their creative thought may

[29] James Bryant Conant, *Education in a Divided World* (Cambridge: Harvard University Press, 1948), p. 125.

[30] *A Quarter of a Century of Learning, 1904–1929*, edited by Dixon Ryan Fox (New York: Columbia University Press, 1931), p. 91.

be quite different from the detailed and often fruitless reports which now fill the pages of professional journals.

The college teacher, if he is to be continuously informed about the varied and significant developments in the sciences or the humanities which ought at the earliest possible moment to be put into circulation among citizens generally, must devote his time to reading and reflecting on the original findings of investigators. Scholarship in his case means knowing his subject broadly, not narrowly, and being able to see the relationships and the philosophical significance of new knowledge as it is produced.

In an address on the changing character of college teaching over the past century, W. H. Cowley clearly makes this distinction between two types of research:

> Factual research consists in adding new facts to the store of knowledge, facts which enlarge upon existing data or which open up new areas of knowledge. . . . Conceptual investigations differ from factual studies in that they either appraise and reorganize facts already in hand or do the same for existing concepts. The work of Einstein constitutes a dramatic illustration of conceptual research: he never, I understand, undertook any factual investigations but, rather, worked entirely with mathematical and physical concepts. Physicists and astronomers, however, had to check his findings by means of factual studies. This must be emphasized because it makes clear the unequivocable necessity of keeping both kinds of research constantly in balance. Frequently, however, the same individuals do not undertake them since each variety demands different capacities.[21]

No less intellectual stamina and competence are required in encompassing and ordering an ever-expanding body of knowledge than in investigating a minute feature of the physical or social world, or of a philosophical system. The arbitrary claim that greater intellectual ability is required in analysis than in synthesis is highly debatable. Much of the "original" factual research rewarded with the Ph.D. degree involves mechanical, pedestrian intellectual operations far below the level of those employed in philosophical synthesis of existing knowledge in new patterns of meaning. The conceptualizations involved in Einstein's development of the relativity theory, for example, required an order of intellectual rigor and creativeness, a perception of integrating relationships far superior to the discovery of most of the factual data on which they were based. Turner's theory that the Western frontier served as a safety valve for society on the Eastern shore likewise involved the as-

[21] W. H. Cowley, "College and University Teaching, 1858–1958," *The Educational Record*, Vol. 39, No. 4 (October, 1958), p. 324.

sembling of a vast quantity of detailed research data, but its dramatic quality was the creative synthesis of previously unrelated facts.

The processes of evaluation and judgment involved in a critical examination of ideas, theories, proposals, and hypotheses are those which the average citizen needs in his everyday life if he is to live intelligently. The prospective teacher of undergraduates should in graduate school be habituated to their use and skilled in nurturing them in others. The educated adult, faced with complex problems in the physical or social world, cannot launch an experiment to discover the solution he requires. He needs, instead, to be driven by intellectual curiosity, to possess the ability to discriminate between reliable and unreliable sources of information, and to be skilled in evaluating the knowledge which already exists. The college teacher's primary responsibility is to cultivate these abilities and traits. The exercises in which he engages in the scholarly activities of the graduate school ought to prepare him to do so.

This is why it is so important to discriminate between knowledge to be used in *democentric, practicentric,* and *logocentric* instruction. The first is primarily for the run of citizens who need to be widely informed about the nature of the world and of man; the other two are properly concerned with the esoteric knowledge of the scholar and the processes by which it is created and applied. The person engaged in original research devotes a large proportion of his total effort to exploring a limited sphere of reality. Other scholars and teachers unify and disseminate the products of factual research.

The graduate teacher and research specialist in a land-grant college may be the world's leading mycologist, but not currently informed in other branches of the biological sciences. Modern knowledge expanding as rapidly as it does makes it impossible for a person engaged in factual research to encompass the literature of his subject except in the area of his own narrow specialty. Unless he does the latter, he runs the risk of redoing the research of others or of not taking advantage of the latest advances in their work. To the extent that a research professor "keeps abreast" of his own field, he must necessarily neglect others even in the same general category of learning.

The college teacher, on the other hand, must devote his time largely to keeping himself informed about the development of new theories and knowledge in his own and related fields. Hence, the concept of research as an integral part of the Ph.D. degree program for college teachers ought to be broad enough to include intellectual activity concerned with the integrating of large bodies of diversified knowledge

in meaningful units of instructional materials. Speaking of the urgent need for teachers who possess these abilities, James Harvey Robinson attempted to describe their functions in the following words:

> They should be re-assorters, selecters, combiners and illuminators. They should have a passion for diffusing knowledge by divesting it as far as possible of its abstract and professional character. At present there is a woeful ignorance, even among persons who pass for intelligent, serious and well-read, in regard to highly important matters that are perfectly susceptible of clear general statement.[88]

Another eminent social philosopher concerned with the training of scholars has written penetratingly about the distorted purposes of modern higher education. After an exhaustive analysis of the uses and abuses of specialized knowledge, this imaginative Spaniard has emphatically affirmed the need for teachers capable of bringing the present fissioned learning of the world back together again for the enlightenment of this age. In his *Mission of the University,* Ortega y Gasset describes the now uncommon qualities of mind which institutions of higher education should cultivate in those who are to instruct the youth of the day:

> The need to create sound syntheses and systematizations of knowledge, to be taught in the "Faculty of Culture," will call out a kind of scientific genius which hitherto has existed only as an aberration: the genius for integration. Of necessity this means specialization, as all creative effort inevitably does; but this time, the man will be specializing in the construction of a whole. The momentum which impels investigation to dissociate indefinitely into particular problems, the pulverization of research, makes necessary a compensative control—as in any healthy organism—which is to be furnished by a force pulling in the opposite direction, constraining centrifugal science in a wholesome organization.
>
> Men endowed with this genius come nearer being good professors than those who are submerged in their research. One of the evils attending the confusion of the university with science has been the awarding of professorships, in keeping with the mania of the times, to research workers who are nearly always very poor professors, and regard their teaching as time stolen away from their work in the laboratory or the archives.[89]

The colleges today need thousands of teachers who, in the words of Ortega y Gasset, will constitute a "Faculty of Culture." Such an occupation should be exciting to the searching mind. The intellectual exercise of synthesizing existing factual material in capacious patterns of

[88] James Harvey Robinson, *The Humanizing of Knowledge,* rev. ed. (New York: George E. Doran Co., 1926), p. 71.

[89] José Ortega y Gasset, *Mission of the University,* trans. H. L. Nostrand (Princeton, N.J.: Princeton University Press, 1944), pp. 91–92.

meaningful relationships and generalizations can be just as stimulating to the pursuer of truth as that of analyzing small areas of reality. The volume of knowledge, the sweep of imagination, and the discrimination of judgment required in the selection and interrelationship of germane material in a systematic treatment of a large subject should be a challenge to the most robust minds.

Even in such a field as mathematics where the internal logic of the discipline and sequences of subject matter are more precisely established than in other fields—leading scholars have expressed the opinion that breadth of experience and an unconventional dissertation would better prepare college teachers for their duties. In the penetrating report of the Commission on the Training and Utilization of Advanced Students of Mathematics previously referred to these mathematicians set forth some of their proposed requirements for the Doctor's degree in the following words:

> (1) Additional course work [beyond foundation courses in each major subdivision of advanced mathematics] . . . with emphasis on breadth of training.
>
> (2) One or more expository papers of the variety known as *minor theses* in the existing requirements for the doctorate in mathematics in some universities. A thesis of this variety would require the candidate to give evidence of his ability to learn independently and to present in good written form, in a brief period of time, some specified known mathematical results with which he was previously unfamiliar.
>
> (3) A major thesis which would exhibit the candidate's mastery of some field of mathematics and expository ability of high order, although perhaps not research ability. The preparation of this thesis should be the independent responsibility of the candidate. This thesis might be of a historical nature, or it might involve material which, though original from the candidate's viewpoint, might not be acceptable for publication in a leading periodical.[84]

These recommendations of the Commission clearly depart from the common requirement of an original piece of research.

A similar liberalizing of the research requirements for the Doctor's degree in other fields to encourage candidates to prepare dissertations requiring broad learning and the integration of knowledge rather than factual investigation might draw to college teaching many who now see greater excitement in other intellectually less confining occupations. An educational experience which allowed greater freedom to range widely in the fields of knowledge, to establish relationships between the facts and theories of various disciplines, and to reflect on their meaning in the lives of ordinary people, might attract a number of inquisitive and nonconformist minds which now seek their intellectual satisfactions else-

[84] "Report on the Training of Teachers of Mathematics," p. 268.

where. Nobody knows how many such expansive and vigorous intellects the academic life loses through the present restrictive requirements for advanced degrees, but the number must be considerable.

The purpose of these observations is not to depreciate graduate education in principle, but to throw into high relief the shortcomings of the graduate schools which result largely from requirements that regrettably do not even yield an adequate corps of research scholars. It is amazing, however, that an institution like the graduate school, professedly dedicated to the promotion of research in all areas of life, has, with notable exceptions, made no effort to investigate the validity and the success of its own activities.

Fortunately, American society need not choose between competent teachers and skilled men and women in research. Both can be produced in sufficient numbers. Appropriate changes in the policies and practices of graduate schools will enhance the competence of both investigators and scholarly teachers. In sum, the nation can have enough college teachers and enough research scholars if it really wants them.

4. SEMINAR IN THEORY AND PRACTICE

While the prospective college teacher is acquiring the essential corpus of knowledge and learning to organize and use it in the exacting duties of teaching youth, he ought also to be discovering something about his prospective calling. In some degree this occupational orientation can be provided in seminars exploring the increasing significance of higher education in our national life. A considerable body of fact and theory exists relating to (1) the history, philosophy, and purposes of higher education in a democracy, (2) the mechanics by which colleges and universities are structured, administered, and governed, (3) the myriad variations in academic ability and interest among the students the teacher may encounter in different types of institutions, (4) the teaching practices which have proved useful with different subjects and the varying circumstances of the classroom, (5) the means now available for appraising the results of education, and (6) the place of the teacher's own subject in the student's total undergraduate education.

Most teachers learn about these matters through casual experience or trial and error, processes inexcusably expensive of time and energy and often a detriment to the student's learning. Some never, throughout their careers, become reliably informed on these subjects and consequently cling to practices and opinions invalidated by easily accessible knowledge. Hence, ignorant opinions often mold the policies which determine the character of American higher education.

Examples of misinformed convictions and their damaging consequences are easy to find in current discussions of controversial educational issues. Anyone who has sound information on the types and abilities of college students today, for example, realizes how utterly baseless and misleading are some of the currently proposed solutions to the problem of overcrowding in colleges. One such plan involves handling the imminent flood of college students by denying admission to all but those who stand in the top levels of their high school classes. This misinformed suggestion is tantamount to proposing that many colleges, including some of the most ancient and reputable, should close their doors, since the majority of their students do not meet the suggested criteria. Informed persons who genuinely wish to make educational opportunity available to American youth in accordance with their abilities would not obscure the present crucial discussion with such impracticable proposals.

If members of the profession possessed readily available knowledge, much of the confusion in discussions of higher education—so wasteful of the time and energy of those who engage in them and so frustrating and disillusioning to the general public—would cease. A seminar which considered the most reliable findings in educational history and psychology, in testing, in the economics and sociology of academic life, and the place of higher education in American culture, would prevent college teachers from being amateurs in their chosen calling. They would thus obtain the basic knowledge necessary to consider intelligently the educational problems which morally they can neither avoid tackling nor solve in ignorance. Experience in a few institutions suggests that these seminars, if led by informed and stimulating teachers, would have wide faculty support. In addition to improving teaching in undergraduate colleges, the seminars would in time also assist in the resolution of the perplexing educational issues of our day.

5. APPRENTICESHIP

Thoughtful observers are also convinced that a suitable graduate program for those planning to teach ought to include supervised teaching. Since all large universities with graduate divisions also include liberal arts colleges, classroom experience under a skillful teacher should not be difficult to arrange. The committee of distinguished mathematicians, recognizing the value of practical experience in the classroom, recommended innovations in the requirements for graduate degrees for college teaching with the following specialized preparation for the teaching of mathematics:

a. The equivalent of one year of observation and assisting three times a week in various college courses in mathematics which are taught by experienced members of the department of mathematics.

b. Practice teaching in college mathematics under the observation of, and with later criticism by, members of the department of mathematics. This teaching might advisably be done in different courses and should amount to the equivalent of at least a two semester-hour course. The practice teaching should involve participation in the construction and grading of examinations."[35]

It is instructive to observe that this group of leading mathematicians did not endorse the view that thorough familiarity with subject matter and the successful prosecution of an original investigation were adequate preparation for college teaching. On the contrary, they considered actual classroom teaching under supervision an indispensable experience prior to the awarding of the degree even for those who demonstrated unusual investigative abilities.

Since some skillfull teachers of graduate students also offer instruction for undergraduates, they themselves could supervise the initiation of the neophyte college teacher into the complicated, and often at the outset completely frustrating, experience of conducting a class. If the graduate student served a term as a probationer before he made his first independent entrance on the classroom stage, fewer undergraduates would suffer from the usual ineffectiveness of the beginning teacher.

Some years ago medical educators recognized that classroom instruction unaccompanied by practical experience produced doctors who, however well versed in medical theory, were perforce unskilled in the arts of practice. Medical schools have, therefore, added meaning to formal instruction and increased the technical skills of the fledgling doctor by requiring him to devote a considerable portion of the last two years of his professional education to the actual handling of patients while supervised by practiced physicians. Under this system fruitful advances have been made in teaching essential skills and in the clinical application of appropriate knowledge.

Students, their parents, and society at large have the right to expect that college teachers who shape the minds, the character, and the personality of young people—matters surely no less important than their health—will possess at least the rudimentary skills of their profession. Properly conducted apprentice teaching could cultivate these basic skills and also form a bridge over which the beginning teacher could pass with confidence from student life to professional responsibility.

[35] "Report on the Training of Teachers of Mathematics," p. 267.

Recommended Reforms Unheeded

The history of higher education shows that these proposals for the reform of graduate education for college teachers are neither radical nor, except in detail, especially new. As has been shown, from the beginning of graduate work in the United States, many of the ablest, most gifted research scholars have recognized the basic difference between the activities of research and those of college teaching. They were convinced that the education of college students would be increasingly neglected or damaged by the effects of the partial and misdirected purposes of graduate education. The fears of these prescient educational statesmen have been realized beyond their most extravagant predictions.

By the third decade of this century, less than fifty years after graduate education had gained a foothold in the United States, the successors of these early critics, witnessing the ineptitudes and the diversionary preoccupations of college teachers, recognized its deleterious effects on the purposes and the work of the liberal arts college. In 1920 Sidney E. Mezes, President of the College of the City of New York, expressed the growing view that the graduate schools' insistence on research of the analytical type was interfering seriously with the education of college teachers and the discharge of their duties.

> In colleges grown from English seedlings we sought to implant grafts from German universities. Independent colleges and colleges within universities, while still called upon by American traditions and needs to prepare their students for enlightened living by means of a broadening and liberating training, came to be manned preponderatingly by narrowly specialized investigators, withdrawn from everyday life, with concentrated interests focused upon subjects or parts of subjects, rather than upon students. Little thought was, or is yet, given to the preparation of college teachers for their duties as teachers. . . .[35]

Criticisms of this type increased with the passing years. Ernest H. Wilkins, once Dean at the University of Chicago and later President of Oberlin College, became an energetic champion of reconstruction in the graduate schools. Addressing a meeting of the Association of American University Professors in 1930 Wilkins urged these institutions to act more responsibly in preparing college teachers for their particular functions:

[35] Sidney E. Mezes, "Professional Training for College Teaching," in *College Teaching*, edited by Paul Klapper (New York: World Book Company, 1920), pp. 32–33.

Most of the students who are in the graduate school are there because they intend to be college teachers. They come to that school to qualify themselves for college teaching positions. Yet it cannot fairly be said to be true that the main emphasis in the graduate school is to qualify them for teaching positions. The graduate school has another tremendously important function, the function of training men for research. The graduate school is also perfectly right in saying that every prospective college teacher should be given some training in research. But granting all that, it remains true that the primary purpose and the primary social function of the graduate school are to prepare men and women for positions as teachers; and the graduate school is not yet fairly facing and living up to the implications of that responsibility.[37]

The Association of American Colleges, in which Wilkins was a prominent member, for several years importuned the members of the Association of American Universities, the institutions which trained most college teachers, to revise their policies and practices relating to the education of the men and women the colleges employed. Under the chairmanship of Melvin E. Haggerty of the University of Minnesota a committee of the North Central Association of Colleges and Secondary Schools, which began its work in 1925, joined in these efforts. Over a period of six years Haggerty's committee issued three reports presenting facts and suggestions concerning the work of college teachers and the type of educational program best calculated to prepare them for their duties.

The studies of the committee led Haggerty to conclude that:

Indifference to the need for such training [specific training for college teachers] is all but universal in these schools which aim to train their students for academic scholarship and productive research, even though the records show that such students are headed toward college teaching as a career.[38]

In a later report Haggerty added:

It may fairly be asked whether the time has not arrived to face squarely the obvious facts. The graduate schools of American universities are essentially teacher training institutions and upon the kind of training which they offer and require of their doctorate candidates will depend the character of our college faculties and the quality of college education.[39]

After exhaustive study of the existing situation, Capen, Wilkins, Haggerty, and a host of other informed persons advocated a graduate pro-

[37] Ernest H. Wilkins, "Current Trends in Higher Education," *Bulletin of the American Association of University Professors,* Vol. XVII, No. 2 (February, 1931), p. 158.

[38] Melvin E. Haggerty, "The Professional Training of College Teachers," *The North Central Association Quarterly,* Vol. 2, No. 1 (June, 1927), p. 120.

[39] Melvin E. Haggerty, "Occupational Destination of Ph.D. Recipients," *The Educational Record,* Vol. 9, No. 4 (October, 1928), p. 218.

gram for future college teachers different from that for those intending to spend their lives in research and graduate teaching.

The thoughtful and sincere recommendations of many individual scholars and the formal actions of such organizations as the Association of American Colleges and the North Central Association were in earlier years peremptorily and in some cases condescendingly rejected by the leaders of graduate education The latter reiterated the specious claim that only those who did factual research, not only in satisfying the requirements for the Doctor's degree but continuously throughout their professional careers, could effectively instruct undergraduates. They immovably reaffirmed the position that only persons of research potential should be granted the degree which was then, and to a large extent still remains, the prime qualification for employment and advancement in the college community. In 1932 a committee of the Association of American Universities under the chairmanship of Fernandus Payne, Professor of Zoology and Dean of the Graduate School at Indiana University, expressed the unyielding position of the Association with respect to factual research and the other accepted requirements of the Doctor's degree for college teachers. Dean Payne wrote:

> We also believe in the research training because it is by this route that most of us acquire that love and enthusiasm for our subject which drives us on, not only toward research, but toward good teaching. Good teaching and research cannot be completely separated. It does not seem possible, if this brief analysis is correct, to omit any part of the present Ph.D. training.[40]

This statement obviously makes no distinction between the conceptual or synthetic type of research and factual research. It should be stated emphatically that all vital college teachers will engage in the kind of intellectual activity which constantly increases their stock of knowledge and their awareness of the developments at the frontiers of their subjects. Many will also continuously publish scholarly literature relating to the subject matter with which their daily teaching activities are concerned. Dean Payne was correct in linking the activities of scholarship and good teaching. He was wrong in limiting the concept of research to the production of new knowledge of primary interest to those whose lives are devoted to factual research and the teaching of those who like themselves intend to spend their lives principally in this type of activity. Although some graduate schools have made feeble attempts to correct the present deficiencies, the tacit position of most faculty members in

[40] Fernandus Payne, "Report of Committee on Teacher Training," *Proceedings of the Association of American Universities, Thirty-fourth Annual Conference, 1932*, p. 94.

these institutions conforms to that stated by Dean Payne over a quarter century ago.

New Forces in the Arena

Viewing these facts an interested citizen might properly ask why these conditions are allowed to persist. Why must the defects in liberal education which stem from the dominant practices of the graduate schools continue? Why are the importunities of thoughtful and courageous leaders in the colleges who engage a large percentage of the Ph.D.'s almost totally ignored? Why have faculty members, deprived by the influences of the graduate schools of their deserved share of the psychic and material rewards of academic life, failed to rebel against the forces of blind custom and entrenched interests? Why have they not advocated basic changes in the conventions of academic life which keep them from devoting themselves wholeheartedly to teaching youth the things they need to know if they are to live intelligently in this complex world?

There are many forces at work which make it difficult to explain this amazing state of affairs which would be comic if it were not tragic. The most influential factor is probably the usual element in any reasonably stable social situation—human inertia. But the determinative factor is the locus of power in the academic enterprise. The initiative for reform does not rest with these dissident groups. Because of Eliot's reorganization of Harvard in 1890 the power resides in the graduate faculties of the universities and in their offspring in the independent colleges. No amount of reason—and it has been sincere, vigorous, cogent, and prolonged—has yet been able to unhorse this directive academic class.

Many proposals made by scholars of wisdom and integrity for the correction of the present crying shortcomings of graduate education have been almost totally disregarded by the group which controls its policies and shapes its character, and this fact foreshadows the extreme difficulty of accomplishing even the most obviously needed reforms. Until different influences are brought to bear on the policies which prevent colleges from fully discharging their proper functions, new attempts at persuasion by fact or logic are unlikely to fare any better than their predecessors. But as John Kenneth Galbraith has so acutely observed in his arresting book, *The Affluent Society,* "the march of events" often changes social practices against which reason has been powerless.

Tides are flowing in American society today which, "taken at the flood" and channelled into educational reconstruction, could lead college education on to more fortunate functions. Some of these social phenomena may at first blush seem to have little bearing on college teaching

and less on the future of graduate education. A deeper view will discern emerging forces in American society which may supply the leverage needed to break the shackles of traditional power and practice.

The greatest single potential influence on all educational forms and usages is the extraordinary increase in births since 1940. The facts regarding the effect of this biological phenomenon on enrollments in colleges and universities need no documentation. The rise in the numbers of youth of college age and their increasing inclination to seek higher education will, as indeed they have already begun to do, create an unprecedented need for teachers. This demand will not be met if "business as usual" policies continue. In the five-year period from 1951–52 to 1955–56 the number of Doctors' degrees awarded rose by only 16.8 per cent, and the Masters' degrees dropped somewhat.[41] Even the most imaginative innovations and the swiftest changes of policy will not produce an adequate supply of college teachers in the early future, but vigorous action now could greatly increase the number a few years hence.

It may be expected that rising enrollments will activate unusual measures. As increasing numbers of qualified high school graduates are denied admission to institutions of their choice the general public will react with vigor and impatience. In typical American manner they will want to know why the responsible institutions have not increased the output of teachers. The better informed and critically minded will also inquire why college teachers are prosecuting research (or fruitlessly trying to do so) and teaching advanced specialized courses to a handful of students while the general education of thousands of our future citizens is neglected.

These inquiries by laymen, particularly if they are trustees of colleges or universities, could have two galvanic effects. They may disclose (1) that there is no defensible reason for continuing some of the present graduate requirements for teachers of undergraduate students, and (2) that some of the principal difficulties colleges experience in designing a suitable and economically defensible program of liberal education originate in the preparatory education teachers receive for their professional duties. The resulting action could produce many more *democentric* teachers equipped to supply general education in liberal arts colleges and professional schools. As for the second point, facts on the *costs* of highly specialized instruction for a few students may raise basic questions about the purposes of college education.

[41] *Earned Degrees Conferred by Higher Educational Institutions 1955–1956*, U.S. Dept. of Health, Education, and Welfare, Circular No. 499, May, 1957. U.S. Government Printing Office, 1957.

With the possible exception of medicine, graduate education is probably the most expensive in the entire American educational system. As citizens generally become more concerned about the shortage of college teachers they will inquire whether colleges and universities economically employ their present staffs. Some individual businessmen and corporations already demand such information as a precedent condition of any financial contributions.

With the relevant facts before them, trustees and other public bodies will be able to see more clearly than at present their responsibility in the impending crisis in the colleges. The pressing need for appropriate action to produce more and better-equipped college teachers will stand out in high relief. The consequent activities ought to result in teachers devoting their time and energy undividedly to the activities appropriate to a collegiate institution. Thus the exigencies of the hour may actuate much-needed reforms that have been postponed until now by the even tenor and the detachment of academic life.

Reorganization of Graduate Education

As those concerned with the improvement of college teaching go about their vitally important work, they might well begin with an examination of the structuring of the graduate school. As thoughtful analysts have for years observed, the ailments of the graduate enterprise cannot be cured until these institutions recognize that they ought to perform at least two quite different, though not fully conflicting, functions. As Harper, Gilman, and Tappan stoutly contended long ago, there should be one graduate program for college teachers and another for those primarily interested in research. In recent years some have proposed a complete physical separation of the two functions.

Professor Howard Mumford Jones, once Dean of the Graduate School of Arts and Sciences at Harvard, a few years ago observed that "We cannot get along without research and we cannot get along without graduate education." He proposed that two separate administrative units be established at the graduate level, and in the following words described the type of institution he would establish to serve the particular interests of those intending to teach:

> I believe we must create in selected universities hospitable to the idea a new graduate educational unit to be called the Graduate College, the primary purpose of which shall be not the training of research workers but the education of persons competent to teach intelligently the general work of the liberal college. I refer, of course, not to experts trained in the Research Training Institute and

in charge of professional or vocational training programs which the college must retain, but to broadly educated men and women able to administer general education maturely, richly and with a high sense of its import. That is, they will want to make a career of it and not take it on as an extra burden. . . . This faculty should be full professors, or at the utmost, full professors and associate professors, in order that the bickerings of academic preferment and the jockeying for appointment may be reduced. They should not be organized into departments, though their numbers should as a matter of course include representatives of all the parts of learning, broadly considered—the humanities, the social sciences, and science itself. But it should not include linguists *qua* linguists, economists who have just invented a new system or zoologists who are famous for rarefied research work. Persons of this calibre belong in the faculty of the Research Training Institute.[42]

In the abstract these proposals and many others like them are eminently reasonable. But reason in conflict with firmly established custom armed with political power is no more likely to prevail in the academic world than in other social institutions. Inspired by the conception that "bigness" is synonymous with "goodness" and undergirded by the conviction that what is good for the department of physics or sociology is good for the institution, departmental interests in graduate schools are not likely to relinquish any of their prerogatives or student registrations to a new administrative unit. Hence, the best that can be realistically hoped for now is that graduate faculties can be brought to recognize the inadequacy of the present preparation of college teachers and, further, to devise new programs within existing structures to improve the training and increase the supply of such teachers. It would appear unlikely, however, that this objective can be reached except by the establishment of new explicitly defined goals for graduate education, by the organization of new curricular patterns consistent with these objectives, and by the adoption of broader conceptions of research. Ideally, special administrative authority for this new teaching program should be created within the graduate school if it is not to be suffocated by tradition or emasculated by opposing forces before it becomes viable and productive.

Progress Already Made

Fortunately, a few institutions have initiated plans specifically for the training of college teachers embodying most if not all of the needed revisions of conventional programs. Syracuse University has had the long-

[42] Howard Mumford Jones, *Education and World Tragedy* (Cambridge: Harvard University Press, 1946), pp. 151–154.

est and most successful experience of this type. Fourteen years ago, under the leadership of Chancellor William P. Tolley, Syracuse inaugurated a graduate program with a new degree, the Doctor of Social Science, designed primarily for college teachers. The chief feature of this enterprising innovation is the opportunity it provides for learning in the subject matter and the methodology of several of the social sciences. Instead of spending the entire graduate period in the study of a single academic field, or more commonly in one of its subdivisions, the candidate for the D.S.S. degree pursues instruction in a group of related disciplines, thus gaining the breadth of learning required in the most effective undergraduate instruction.

At the end of its thirteenth year the University invited a group of educators from other institutions to evaluate this unusual experiment. Though commenting favorably on several features of the D.S.S. program, this group in the following words especially commended the effort to integrate the subject matter of several disciplines:

> The broad factual background that serves as the base for a teacher's professional role can be best obtained if the narrow lines of traditional academic specialization are avoided. This emphasis upon breadth of understanding in the several social sciences does not preclude depth. Along with breadth of perspective the college teacher should have content depth in a particular area, but such an "area of depth" should be defined only partially in terms of traditional concepts. For example, although a college teacher needs considerable background in political science if his area of depth is that of American political systems, he must also have extensive knowledge of American history, economics, geography, sociology, and social psychology.[43]

The broad intellectual experience in several fields is buttressed by two other professionally related activities. One involves *supervised teaching* in the Maxwell Graduate School of Citizenship and Public Affairs and the other a *seminar* in which these future teachers consider problems of higher education in general and in the social sciences in particular.

Dean Harlan Cleveland reports fifty-nine degrees conferred under this program by the end of the academic year 1958–59, and seventy-four students still in progress toward the degree. The consultants' evaluation of this venture also revealed that officers in the institutions employing recipients of the D.S.S. degree rate them generally as highly competent and stimulating teachers. And contrary to the contention that only

[43] Syracuse University, "The Doctor of Social Science Program at Syracuse University," December, 1958, pp. 1–2. The members of the group were: Paul R. Anderson, President, Chatham College; Philip L. Davidson, Jr., President, University of Louisville; Chauncey D. Harris, Dean of the Social Science Division, University of Chicago; Willard L. Thorp, Director of the Merrill Center for Economics, Amherst College; and Goodrich C. White, Chancellor, Emory University.

those working in a narrow field of factual research can be productive investigators, the majority of these men and women continue to publish in scholarly journals. In many instances, their conceptual research is related to the *democentric* teaching with which they principally occupy their professional time.

The Syracuse program, with fitting local adaptations, deserves wide emulation. In view of the unquestionable success of this exemplary project it is regrettable that similar efforts have not been launched in the two other major branches of learning—the natural sciences and the humanities. If many institutions were to inaugurate programs of this type, the growing shortage of college teachers could soon be appreciably reduced.

Status of the College Teacher

Even if a number of institutions were to undertake the urgent responsibility of redesigning the program for prospective college teachers, other changes would have to occur to make the profession more attractive. The proposals made thus far for the improvement of college education through the better training of teachers have dealt with matters of curriculum and internal organization. Psychological and social forces of a more general sort obstruct the substantial and lasting betterment of liberal education. The revitalization of the liberal arts college can hardly be accomplished unless the profession as a whole and the lay public as well change their attitudes toward the status of the college teacher and the value of his work. As long as the intelligent, skillful, and dedicated teacher is penalized, as he now commonly is, rather than rewarded for his efforts, the shortage of qualified teachers will persist and grow. Moreover, the present discriminating policies will continue to dampen the morale of those who remain in the profession and, because of a feeling of mission, single-mindedly devote themselves to the instruction of undergraduates.

If college teaching is to be raised to its deserved elevated position in the great society, those who devote a lifetime to instructing undergraduates will have to feel that their service contribution to the well-being of the nation and its citizens is second to none. Citizens generally will have to regard this calling so highly that teachers will not compulsively divert their energies to minute research or suffer enervating feelings of guilt for not doing so. As important as the advancement of knowledge may be—and no thoughtful person would deny the incalculable contribution of research to our national life—the education of

our people for the intelligent discharge of their responsibilities in all the manifold spheres of living can hardly be given a lower value. Yet it is the consensus of thoughtful observers that the general education of citizens has been sacrificed to the training of research workers and the propagation of the specialized knowledge they produce.

The present depressing situation exists because criteria for elevation in rank and salary do not encourage college teachers toward the expansiveness of learning and the dedication of spirit required in provocative teaching. Policies regarding promotion, pay, and other perquisites, especially in institutions in which research scholars largely control the status of the other members of the academic community, militate against the recruitment, the proper training, and the preservation of a qualified teaching force in the colleges.

The baleful influence of such academic policies flagrantly exhibited itself in a large eastern university where one of the country's most celebrated programs of general education has been in operation since the First World War. This tested educational venture enjoys national approval and emulation primarily because of the superior teachers who dedicate much of their professional lives to the instruction of undergraduates. Recently, however, several of the most capable and experienced of these teachers, admired by their students and acclaimed by their associates, were told that they could not expect further promotion in the local academic hierarchy. To sensitive and consecrated members of the profession this unfeeling treatment amounts to dismissal.

What possible reason could justify this inhumanely callous action? Why were these men turned away? Not because they are poor teachers, not because they lack the Ph.D. degree, not because of intellectual incompetence or laziness, not because of moral turpitude. No, but because they had not done detailed research or published scholarly works resulting therefrom. *In short, they were condemned because they had concentrated their efforts on teaching American college youth.*

This travesty on simple justice could, in less flagrant form, be matched in most other universities. It is perpetrated primarily with the purpose of continuing the dynastic control of the graduate faculty over a division of the university which has quite different purposes, or should have, if liberal culture is not to be completely extinguished in this country. Little progress in the revitalization of liberal education can be expected until institutions cease to apply this type of punitive measure to those who diligently and competently discharge the teaching responsibilities for which liberal arts colleges have been established.

Concomitant with the elevation of position, the economic condition

of college teachers requires substantial improvement. Though it may be unfortunate, it is nevertheless true that symbols of material success largely determine status and influence in American society. It may be argued with some justification that the members of a profession, particularly teaching, should seek their primary satisfactions in service to humanity. But the realistic fact is that in a materialistically oriented social order the tangible rewards of life inevitably weigh heavily in vocational motives. College teachers no less than other citizens are a part of this system, and are therefore conditioned by it. In the academic life knowledgeable neophytes promptly learn that professionally those who probe and print, prosper; the others perish. Hence even those who prefer to teach, and who, if they devoted their full energies to this laudable purpose and to the conceptual type of research basic thereto, could do so with commendable success, turn to the *logocentric* investigations of the scholar sheerly as a means of gaining position and income.

It is unrealistic, and unjust as well, to assume that the conditions of college teaching will improve until those who strive to succeed at this socially important occupation receive just rewards for their efforts. Fortunately, many citizens are beginning to recognize this fact and are making strenuous efforts, including personal financial contributions, to enhance the economic position of college teachers. Many trustees in institutions of higher education commendably lead such campaigns. But their most energetic pains will fail to produce the desired results unless these efforts move arm in arm with a critical re-examination of the purposes and the programs of the institutions over which these men and women legally preside. We must face the stubborn fact that no conceivable additional financial support can *alone* raise salaries to a level necessary to attract and hold an adequate teaching force. Put in simple economic terms (and the effectiveness of higher education would be greatly enhanced if its operations were more frequently assessed in these terms) the unit cost of production in these institutions is excessively high. Since students almost never pay this cost *in toto,* taxpayers or philanthropists must make up the difference between tuition income and total expenses. Generally they ought to get more for their money than they now do in terms of better-educated men and women. Present costs can be reduced by more efficient operation, and that means a lessening of the cost per hour of instruction.

Any suggestion to introduce greater efficiency into the management of education quickly flushes out the thought that the very purposes and spirit of education will thus be destroyed. Under proper circumstances nothing could be further from the truth. Educators cannot with

impunity defend the view that the economic and the educational effectiveness of the enterprises of higher education are incompatible. Teachers who advance this argument should realize that though the financial support of higher education may be niggardly, they themselves in part create their own condition of want. Most colleges could achieve their purposes more fully by a lower expenditure per student hour of class attendance.

This desirable result could be realized if the liberal arts colleges reduced the costly specialized instruction they now provide. In doing so they would enrich the education of American youth directly through a sounder curriculum and indirectly by raising salaries and thus attracting to the profession a more adequate corps of imaginative, well-informed, and dedicated teachers.

Strengthening the Financial Foundation

In a small volume, *Memo to a College Trustee,*[44] Beardsley Ruml and Donald H. Morrison vigorously attack the task of preserving a high level of liberal education in this country. Their method involves an analysis of the present condition of liberal education and a series of proposals which, if employed, they believe would extricate the liberal arts colleges from many of their persistent and pervasive financial difficulties. Although Ruml and Morrison's solution is basically financial, it derives from an informed consideration of the purposes of liberal education. They begin with the basic problem of getting and keeping a staff of properly educated and intellectually vigorous men and women willing to devote their lives to undergraduate teaching. They believe this commendable objective cannot be reached unless teachers receive materially increased salaries and other economic benefits, including adequate pensions. They consider the chief obstacle to increasing the income of college teachers to be the universal practice of offering highly specialized instruction to small and expensive classes. By a reorganization of the undergraduate curriculum and an increase in class size, they show how the salaries of college teachers could be raised far above the prevailing average even in the most prosperous universities. Under their plan, a yearly compensation in the order of from 15 to 25 thousand dollars would not be uncommon.

The chief difficulty in the implementation of such a plan to rejuvenate college instruction and enhance the status of college teachers lies in

[44] Beardsley Ruml and Donald H. Morrison, *Memo to a College Trustee* (New York: McGraw-Hill Book Company, Inc., 1959).

their compulsion to offer advanced instruction to a few selected students. As has been shown, this irresistible urge springs from the psychological conditioning of the graduate years and the dominance of the graduate enterprise over the lives of liberal arts colleges.

The main idea expressed at the beginning of this discussion bears repeating at this point. The institutions charged with the responsibility of providing liberal education are not adequately performing this function. To some extent their misfeasance is their own doing. But to a degree they have lost sight of their proper mission because it has been obscured by the shadows of another division in our educational system, the graduate school. The restrictive and distortive policies of graduate education which, however meritorious in themselves, do not apply to undergraduate institutions prevent the colleges from reinstating their crucial purposes. Until these institutions can regain their independence, and their singleness of purpose, they will not be able to provide the education which the youth of the nation must have for the preservation of our domestic well-being and our international position.

The accomplishment of the proposed reforms in the graduate schools would produce highly beneficial results in the liberal arts colleges. Conditions would then exist which would permit these institutions to regain their original sense of mission and allow them to design an educational program suitable to its execution. Once again they could resume their historic function of providing that general education required by all citizens if they are to understand and live fully in their age. Although they cannot return to the curriculum of the early nineteenth century, the liberal arts colleges could do worse than reaffirm the purposes of liberal education as the disciplining and furniture of the mind and shaping the character of youth. If these terms were translated into modern subject matter and related to the principles of contemporary psychology, they would become as useful today as they were over a century ago. The Yale Report of 1828 is anachronistic in its curriculum proposals, not in its goals. A re-emphasis on breadth of learning, intellectual skills, and traits of personality and character would restore the liberal arts colleges' sense of direction. It would also provide the philosophic basis for their organization and government.

The differences between special and general education would be clarified to the advantage of both. Special or *practicentric* education has become a permanent feature of liberal arts colleges. The recognition of this fact and the conscious acceptance of its implications by faculty members would benefit rather than harm the general education of students. Under present circumstances, though the defenders of the "pure" liberal

arts condemn special (or vocational) education, they nevertheless offer it under a variety of disguises. The content and the methods of much of the advanced instruction in the various liberal arts subjects reflect purposes no less vocational than the instruction in professional schools. The failure to clarify this semantic problem results in a much larger emphasis on special education than is justified, and a commensurate neglect of the general or *democentric* education of students.

It would be advantageous to agree that about one-quarter (thirty-odd semester hours) of a college program might well be given to the major, and considered special education. The remainder of the four-year curriculum should largely serve the purpose of broadening the student's knowledge and cultivating the skills of reasoning and interpretation employed in a wide range of disciplines. Students would naturally elect a few supplemental courses to round out their majors, as, for example, chemistry majors choosing physics and mathematics courses. The other instruction pursued for the Bachelor's degree, however, should be general and able to stand by itself without a vocational orientation. That is, the courses in the social sciences and the humanities the future chemist or engineer selects should have a completeness of their own in terms of his general life purposes. They should not be introductory to a long sequence of courses he will normally not be able to pursue. They should, on the other hand, excite sufficient intellectual curiosity and provide basic knowledge for the further exploration of the field after graduation. This type of instruction must obviously differ fundamentally from the elementary courses now commonly offered even to those who do not expect to pursue the subject further.

In the concrete, this view of the curriculum for the A.B. degree should profoundly influence the course content and structure as well as teaching procedures. Entirely new types of general courses would be needed to supplement present specialized instruction and often to replace it. Today, for example, the student who wishes to come to grips with the important problems in the Middle East has to take courses in geography, history (ancient, medieval, and modern), psychology, political science, and archeology. It is obvious that most students neither can nor will devote such a large portion of their total undergraduate education to gaining an understanding of the problems of one region of the world, important as they may be.

In the place of such specialized instruction should be substituted comprehensive courses embracing the facts, principles, and intellectual procedures employed in a wide range of subject matter and applicable

to a host of complex social and political problems. For students who wish to pursue the subject further but who do not wish to spend their lives working in one of the constituent fields, general courses integrating some of the specialized subject matter at higher levels of generality should be offered. That is, advanced general courses are needed which go beyond the elements of the subjects but nevertheless do not constitute units in a sequence of specialization. As part of its general education program Harvard College has already organized and offered such second-level instruction in the various major divisions of knowledge.

The imaginative development of instruction of this type will only occur within a broader conception of the student's need for general education. Moreover, it can occur only if college teachers abandon much of the specialized teaching which they now laboriously carry. But these teachers will not undertake the necessary additional work, nor run the professional risks involved in shifting their efforts from factual research and specialized teaching to general instruction unless the policies and the mores of college life reward the latter rather than the former.

Freeing the colleges from the dominance of graduate education would accomplish all these desirable ends. Under the proper conditions of work and compensation college faculty members would again dedicate themselves to undergraduate teaching. The internal conflicts among departmental interests, which since 1890 have increasingly divided liberal education, would be resolved within the larger purpose of providing both general education for citizenship and special education for work. Concomitantly, graduate schools would be able to devote their efforts more effectively to the two equally demanding but somewhat different responsibilities of educating college teachers and training investigators.

These measures may appear drastic. In some respects they are. But they are realistic in terms of the needs of American society for an educated citizenry. It is common knowledge that independent liberal arts colleges live from hand to mouth. With few exceptions, their financial condition is critical. Private philanthropy supplies a large part of the support of these colleges. The preservation of our dual system of publicly and privately supported higher education will to a large extent depend on the continued well-being of colleges sustained by private funds. The general public should, therefore, be deeply concerned that these institutions so reconstruct their academic and financial policies as to remain independent of public tax-dispensing bodies. As has been shown, however, to do this they will have to become equally independent of the policies and practices of the graduate schools.

Responsibilities of Administrators and Trustees

With greater wisdom than they realized, early Americans placed the control of education in the hands of laymen. The men and women legally charged with responsibility for determining the character of education which colleges and universities provide bear a title—they are generally called trustees—which reveals the importance of their duties. In a very real sense they hold in trust not only the education of youth but also the future of our culture and of our nation. The present situation suggests that they have made excessive delegations of their responsibility for large policy decisions. Administrative officers, in turn, either willingly or more frequently through the arrogation of power by others, have allowed the control of education to fall into the hands of constituent groups, namely the departmental subject-matter interests. Hence, the purposes of the general academic body, as in all other similar political situations within society at large, are frustrated by the vigorous action of special-interest groups.

The urgently needed reforms can only be accomplished if trustees of both the smaller independent colleges and the large universities with graduate divisions reclaim and use their proper authority in determining the over-all institutional purposes for which under the law they have exacting fiduciary responsibilities. The trustees in the undergraduate colleges have the duty to determine to what extent these institutions have departed from their original purpose of educating the youth of the nation for the broad responsibilities of life and on the contrary have become miniature and to a considerable degree ineffective imitations of graduate and professional schools. Finding, as they will, that developments, many of them extramural, have forced liberal arts colleges to change their proper purposes and functions, the trustees must establish a new sense of direction. The trustees, working with administration and faculty, can be instrumental in correcting the shortcomings which now exist. They can require that the financial resources of the institution over which they preside are used for salaries, facilities, and equipment appropriate to the functions it should perform.

The trustees in the universities have comparable responsibilities to discharge in assuring the future of liberal education. The larger and more complex institutions customarily include colleges of liberal arts. The freeing of these undergraduate divisions from the dominating influence of the graduate schools presents an even more difficult problem. What has been said about the independent liberal arts college applies a

fortiori to the liberal arts college organized as part of a university. Until the faculties of liberal arts colleges in these complex institutions have an integrity of their own and freedom to set the purposes of their own instruction, their own policies for promotion and compensation, and their own requirements for degrees, they will remain the impotent members of a larger power complex. Under the circumstances there is even less reason to expect reform in these larger institutions than in their smaller sister organizations, the separate liberal arts colleges, unless trustees initiate and support it.

The trustees of universities, however, have an even more urgent duty. That is to see that the graduate schools take seriously their responsibility for the training of college teachers. As has been shown, this function is at present being performed at best in a limited and haphazard fashion, and at worst with no clearly defined purposes whatever other than to prepare future college teachers for a kind of life of research which most are destined not to lead. Unless trustees initiate appropriate steps toward the reform of the graduate program, the education of college youth will deteriorate with accelerated speed. If the academic community had to make a choice between the education of research scholars or college teachers, it would be a serious question of national policy whether research should have priority over undergraduate teaching. No such troublesome choice is at present before the American people. Both can be done effectively. But neither can be done satisfactorily within the framework of present policies and practices.

Clemenceau once remarked that the waging of war was too important a matter to be left to the generals. Shaping college education for future American youth is likewise a matter of too great import to be left to the specialists. It has been shown that the specialists in the various subject-matter departments have splintered the original unified liberal arts curriculum into a thousand pieces. Moreover, the staffs of graduate schools have gained dominion not only over their own instruction, but also over the policies and practices of undergraduate colleges. Because the colleges of liberal arts have virtually lost their rights of self-determination, their programs have become distorted and often aimless. Order can be restored in the house of liberal education only when those who live there can once again decide the aims and the conditions of their collective life.

The steps toward the re-establishment of freedom in the liberal arts colleges must include: (1) a reaffirmation of a distinctive mission, namely, the education of American youth for the common responsibilities of life in a society in which the decision-making power rests with

the people; (2) a redesigning of the entire curriculum of these institutions to this primary end; (3) a basic shift in policies of recruitment, advancement in rank, and increase in salary consistent with the attainment of these goals; (4) the establishment of graduate programs based on the patent fact that many able college teachers will do no original investigation, but will continue a life of scholarship in accordance with the demands of broad instruction at the undergraduate level; (5) a resumption by trustees of both colleges and universities of their legal and moral responsibility to determine the general policies and programs of the institutions whose welfare and destiny they hold in trust; and (6) an improvement of the management of undergraduate colleges to the end that the limited and often inadequate resources of these institutions will be put to effective use in accordance with proper purposes.

American society exhibits many divisive influences. Some of these reflect healthy individual differences of opinion and conviction. Many, however, even among the presumably well educated, have their roots in general ignorance of the physical and social world—an ignorance resulting from an inferior education. Conflicts on important policies and action stem from the lopsided education the youth of the nation receive in institutions ostensibly providing liberal education, but which primarily train specialists in the various academic or vocational branches. The destiny of this nation, and indeed of others from which our intellectual traditions spring, will ultimately depend upon the willingness and the ability of colleges of liberal arts, and undergraduate professional schools as well, to restore unity to their curricula and hence order to American society. No objective should more vigorously challenge the fraternity of education and laymen than the reform of the college curriculum toward the fateful ends of liberal education.

A policy of complacence and drift in higher education will be as fatal to our cultural and national destiny as would be the maintenance of such a policy in the sphere of governmental affairs. And the two are inextricably interconnected. Nothing less than drastic and revolutionary action in the world of higher education will in this hour of national crisis serve the welfare of our country. The following words of the immortal Lincoln in his message to the Congress on December 1, 1862, might well today determine the character and guide the purposes of our thinking with regard to the reform of higher education:

> The dogmas of the quiet past are inadequate for the stormy present. The occasion is piled high with difficulty and we must rise with the occasion. As our case is new, so we must think anew and act anew. We must disenthrall ourselves and then we shall save our country.

The well-being of the nation demands a unity of purpose and effort transcending personal and party interests. The well-being of the academic community no less demands the selfless suppression of personal, departmental, and institutional interests in the larger purposes of a more responsive and effective academic society. Such dedication to the larger social good citizens generally have the right to expect from institutions of higher education.